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Notice

With the publication of this volume, NLN Press will title the research publications by the year in which they are published. *Nursing Data Review 1991* covers the 1990 survey results. The previous edition in this series was *Nursing Data Review 1989*.

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PREFACE

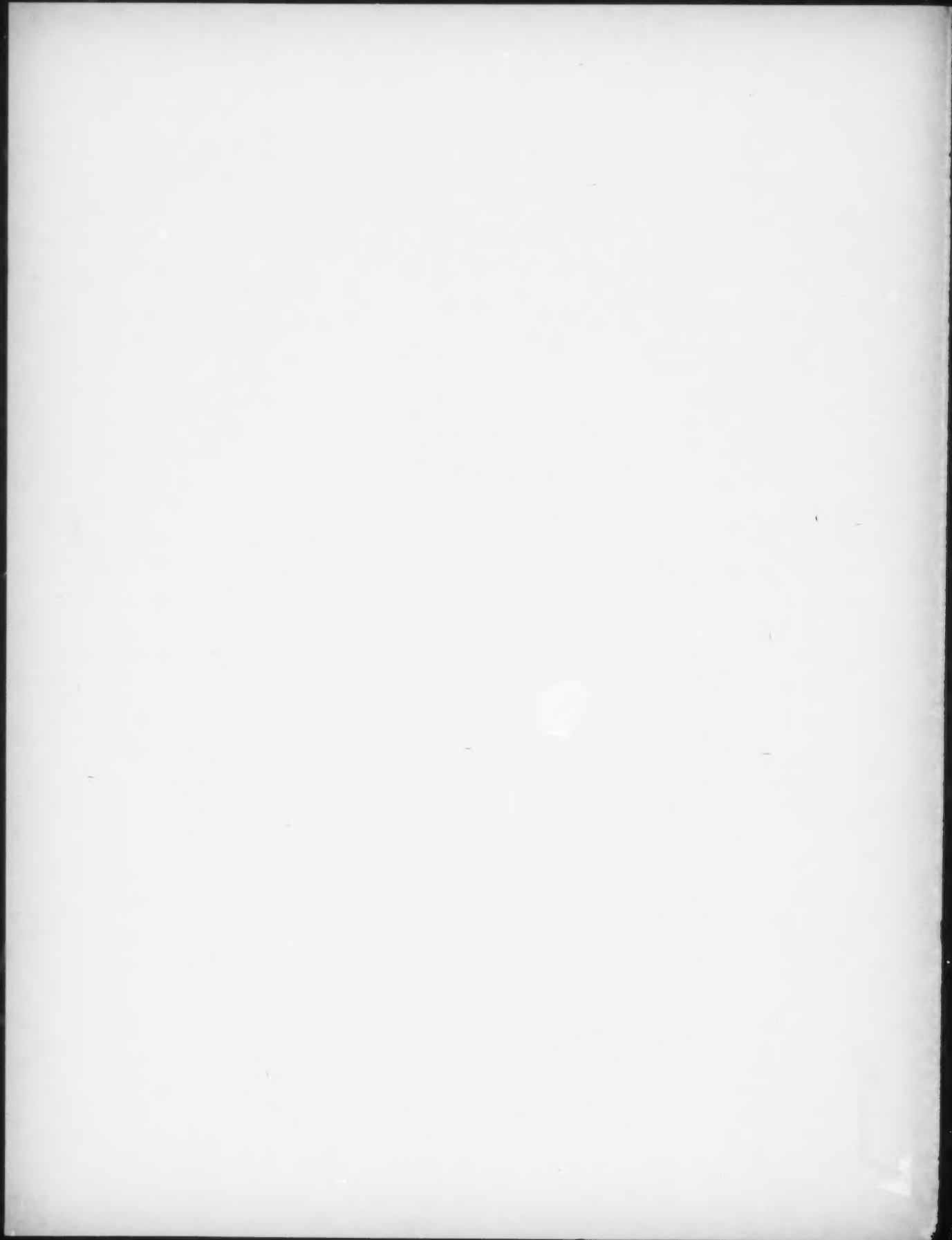
Nursing Data Review 1991 is a comprehensive compilation of the recent reports and publications from NLN's Division of Research. All in one book, *Nursing Data Review* contains the most sought-after research from the annual survey of nursing programs and the biennial census of the faculty. Combining the statistical value of numeric tables, the illustrative power of graphics, and the advantage of interpretive commentary, NLN's Division of Research reports are filled with highly readable information.

Included in this volume are student and institutional data updated yearly since the mid-1950s through NLN's annual survey of nursing educational programs. Previously published in the four-volume *Nursing DataSource 1990*, each volume is reproduced here in its entirety. This volume includes 1989-90 data on basic RN programs, master's and doctoral nursing programs, men and minorities in nursing, as well as statistics on practical/vocational nursing education. Complete analysis on all types of nursing education programs is provided and often accompanied by five-, ten-, and twenty-year trends.

Also included in this volume are the complete findings of the 1990 biennial census of nurse faculty previously published as *Nurse Educators 1990: Findings from the Faculty Census*. These data cover a range of faculty issues such as number of faculty, highest earned credentials, workload, and salaries. In addition to the data on RN and higher degree programs, this volume is the only source for data on LPN/LVN faculty.

As a comprehensive review of NLN's 1990 research activities, this reference will undoubtedly have multiple uses for the educator, administrator, and researcher.

Peri Rosenfeld, PhD
Vice President
Division of Research



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DEFINITION OF TERMS

Administrator of Nursing Program—Dean, chair, director, head of department

Baccalaureate Programs

- a) *Baccalaureate and higher degree programs*: All baccalaureate and graduate nursing programs.
- b) *Baccalaureate and higher degree programs with basic students*: Programs that accept students without prior nursing education. Most of these programs also admit registered nurses who had previously studied at the associate degree or diploma level and are returning to baccalaureate nursing education. Master's and doctoral level programs are also included with these programs.
- c) *Baccalaureate and higher degree programs without basic students (for RN students only)*: Programs designed exclusively for registered nurses returning for baccalaureate education (BRN programs) and/or graduate education.

Ethnic Background—The categories used to denote ethnic background are:

- a) American Indian or Alaskan Native
- b) Asian or Pacific Islander
- c) Black, Non-Hispanic
- d) Hispanic
- e) White, Non-Hispanic

FTE—Full-time equivalents are calculated by assuming each part-time faculty member is equivalent to one-half of a full-time faculty member.

Faculty Workload—The questionnaire asked respondents to indicate the average number of hours per week that faculty spend in the following categories:

- a) *Teaching (classroom)*: Student contact hours in classroom instruction.
- b) *Teaching (clinical)*: Clinical or laboratory instruction or supervision (including pre- and post-clinical conferences).
- c) *Advisement and counseling*.
- d) *Preparation hours*: Time spent preparing for teaching.
- e) *Committee activities*.

Full-time Nurse Faculty—Individuals contracted on a full-time basis to teach or supervise students.

Highest Earned Credential—The highest earned degree or diploma held by a faculty member.

Non-Nurse Faculty—Individuals who are not registered nurses and are contracted to teach students as a part of the nursing faculty.

Part-time Nurse Faculty—Individuals employed less than the required hours for full-time faculty employment.

Unfilled Positions—Full-time budgeted positions not filled as of January 1990.

JURISDICTIONS INCLUDED IN THE NLN REGIONS

North Atlantic

Connecticut
Delaware
District of Columbia
Maine
Massachusetts
New Hampshire
New Jersey
New York
Pennsylvania
Rhode Island
Vermont

Midwestern

Illinois
Indiana
Iowa
Kansas
Michigan
Minnesota
Missouri
Nebraska
North Dakota
Ohio
South Dakota
Wisconsin

Southern

Alabama
Arkansas
Florida
Georgia
Kentucky
Louisiana
Maryland
Mississippi
North Carolina
Oklahoma
South Carolina
Tennessee
Texas
Virginia
West Virginia

Western

Alaska
Arizona
California
Colorado
Hawaii
Idaho
Montana
Nevada
New Mexico
Oregon
Utah
Washington
Wyoming

PART ONE
TRENDS IN CONTEMPORARY NURSING EDUCATION



Section 1-1
Executive Summary



EXECUTIVE SUMMARY

TRENDS ARE ENCOURAGING, BUT THE SHORTAGE ISN'T OVER

ADMISSIONS, ENROLLMENTS, AND GRADUATIONS

The latest data from the National League for Nursing's annual survey of nursing educational programs reveal an upward turn in student enrollments and new admissions. Annual admissions of new, first-time nursing students increased almost 9.3 percent in the 1988-1989 academic year (Figure 1) and on October 15, 1989 enrollments shot up almost 9 percent compared with the previous year (Figure 2). Remarkably, even diploma programs which have experienced severe declines over the past two decades have recently reported dramatic increases.

It will take several years for these increased admissions to make their way through the educational pipeline and become graduates, however. Graduations, arguably the most important educational statistic when discussing the nursing supply, continue to fall with only 61,660 new RNs exiting our nation's nursing schools in 1989 (Figure 3)—the lowest number of RN graduations since 1973. To be sure, graduations will soon begin an upward turn but it is still questionable whether the number of new graduates will ever again approximate the boom years of 1983-1985 when almost 80,000 RN graduates joined the labor force.

Why the dramatic surge in admissions and enrollments? A variety of factors are working together to encourage this growth. The nation's nursing schools, foundations, and national nursing organizations alike have launched innovative recruitment programs to attract new students.

Furthermore, media attention during the shortage has made consumers of health care more aware of the value of nurses. And, in some parts of the country, where local economies are in trouble, people are entering nursing for job security and better salaries and benefits. Nursing remains a career in which the threat of unemployment is rare.

THE NURSING SUPPLY—NOT THE PROBLEM

The NLN's annual data on nursing educational programs, in addition to other information sources, are used by the federal government to make manpower decisions. Graduation and enrollment statistics, while important components in determining the nursing supply, do not suffice in determining the extent of a shortage. In fact, in assessing the current nursing shortage, demand factors were found to be the root of the problem.

Two distinct dimensions—supply and demand—must be addressed in order to properly project a nursing shortage. Essentially, supply is measured by examining the proportion of new entrants into the market place and those exiting. If the number of new graduations exceeds the number of RNs leaving the supply through retirement, death, or non-renewal of license, the supply will not diminish. If, however, the number of new graduates fails to replace the number of those leaving the profession through attrition, then the supply will shrink. At no time in the recent past has the supply of RNs decreased. In fact, the supply has grown consistently.

The *Sample Survey of Registered Nurses* found that in 1988 over 2 million individuals held RN licenses.

* Please note that all the data presented in graphs originate from NLN's Annual Survey of Nursing Educational Programs, unless otherwise indicated.

Eleven years earlier, in 1977, the number of RNs in the nation was 1.4 million (Figure 4). The growth in the supply can be attributed to several developments. No doubt the increases throughout the 1970s and early 1980s in nursing school graduations contributed to the growth in the supply. In addition, and most interestingly, more RNs have been working for consistently more years than before. For example, contemporary RNs are more likely to continue to work throughout their childbearing years than previous generations. This may be a tribute to the women's movement, the economy, or both.

Why is it then that, despite consistent increases in the supply of RNs, the nation has continued to experience chronic shortages throughout the past two decades? As the Secretary's Commission on Nursing discovered, the current nursing shortage is *not* the result of a shrinking supply but can be directly attributed to the demand side of the equation—the inefficient utilization of RNs in all sectors of the health care delivery system. The crux of the matter is this: Numbers alone will not solve the shortage. The overwhelming demand for Registered Nurses will *not* be satiated by more and more entrants into the workforce.

Improper Use of RNs and the Nursing Shortage

It has become increasingly clear that employers of RNs, specifically hospitals, have not been utilizing RNs to their fullest potential. Nurses are versatile health care workers capable of performing a wide range of health care functions that potentially overlap and can substitute for the activities of physicians, administrators, aides, and orderlies. As health care workers go, RNs are "a great buy" for the price. Therefore, it has been in the economic interest of hospitals to maintain a large pool of RNs.

Nevertheless, as a scarce national resource, RNs will have to be used more carefully and judiciously in the future in order to maintain adequate supply. In the final analysis, as nurses are increasingly viewed as a scarce resource, hospitals cannot afford to "stockpile" RNs as they did before.

This improper utilization of nurses has created a situation where demand consistently outstrips supply in acute care as well as in other sectors of the health delivery system. To be sure, with the persistent "Graying of America," the increasing incidence of AIDS cases, and growing health concerns associated with the homeless and poverty, the need for RNs will soar in the 1990s. Indeed, demand for RNs is already burgeoning in ambulatory care, home care, and long-term care, as well.

As a result, the current shortage of RNs is the most recent incident of a perennial problem—the ineffective utilization of nursing resources. What distinguishes this contemporary crisis from others are the compounding factors surrounding it. The introduction of prospective payment and other cost containment efforts and the growth of health care delivery systems outside the hospital have exacerbated existing pressures on supply and demand of nurses.

The nursing shortage has forced the health care system, particularly in the acute-care setting, to listen to what nurses have for so long been calling for—more effective utilization of scarce nursing resources. Indeed, as economic constraints for hospitals grow, and as hospitals compete with other delivery systems for scarce nursing resources, such concerns will become increasingly important.

The nursing community and, indeed, the entire health care system, has been in crisis of late over the shortage of nurses in the nation. The unexpected rise in vacancy rates for RNs and other nursing personnel has put extraordinary pressure on our nation's nurses. At the same time, as nursing school enrollments plummeted from over 250,000 students in 1983 to a mere 183,000 four years later, panic spread throughout the health care delivery system. Yet it would be shortsighted to assume that the crisis is over simply because admissions and enrollments have begun to improve.

Only a careful reform of the nation's patterns of utilization of RNs in the workplace will lead to a viable resolution of the crisis at hand. Differentiated practice models, case management approaches, and, generally speaking, an expansion of the professional nurse's role will succeed in achieving maximum nursing supply levels and efficiencies in utilization of scarce nursing personnel.

The socio-demographic, as well as economic, factors that fuel the demand for RNs in general also spur the need for better educated RNs capable of performing those sophisticated and complex activities associated with decision making, independent practice, management, and patient education.

The rate of growth of the baccalaureate graduate, however, is clearly outpaced by the associate degree graduate. The implication of this trend may signal a crisis in management and educational roles as well as in health care settings. In effect, more preparation will be required.

As such, the improvement in educational statistics does not necessarily signal the end of the crisis for nursing schools either. First, these data remain far below the figures of the early 1980s. Second, the future rise in graduations will only marginally increase the supply. Most important, however, these new students are *not* like their predecessors. As a group, the contemporary nursing school cohort is a different breed than earlier nursing school populations and the characteristics of this breed bring new dimensions and challenges to the nursing community.

EMERGING TRENDS IN CONTEMPORARY NURSING EDUCATION

The growth of associate degree programs is perhaps the most significant trend in nursing education. Almost 56 percent of the nation's RN programs are associate degree programs (Figure 5). Simultaneously, the proportion of diploma programs has shrunk to 10.8 percent in 1989—two decades ago 60 percent of new RNs were the products of diploma programs. In addition to this dramatic shift from diploma to associate degree education, basic baccalaureate education continues to garner more than one-third of the total number of programs (Figure 6).

It is interesting to note two important factors, among others, that are influencing the growth in associate degree nursing education: the community access to these institutions and the "economic value" of the education.

In 1989, the 812 associate degree nursing programs in the United States were well distributed throughout the nation. In fact, the majority of programs in all the geographic regions are associate degree programs (Figures 7 & 8) providing educational services to students on a very local level. In short, associate degree programs have the advantage of convenience, open entrance requirements, and geographic accessibility.

In addition to being situated in the community, associate degree education is relatively brief and inexpensive. The overwhelming majority of associate degree programs are publicly funded with average annual tuitions of about \$1,000. In contrast, the average annual tuition at public baccalaureate programs is \$1,539 and at public diploma programs, \$2,723 (Figures 9 & 10).

The recent Secretary's Commission on Nursing concluded that most employers unfortunately fail to vary the compensation of RNs based on their level of preparation. Therefore, a prospective student might well conclude that there is little economic incentive to attend a basic baccalaureate program since starting salary differentials between ADN and BSN graduates are inconsequential whereas the investment in time and money is quite significant. This argument does not, of course, take into account life-time earnings for which salary differentials are quite disparate.

DEMOGRAPHIC PROFILE OF THE CONTEMPORARY NURSING STUDENT

What makes the new cohort of nursing graduates different? In terms of demographic characteristics, baccalaureate and diploma students are very similar—it's the associate degree student who is different. The preponderance of associate degree students among the new nursing graduates means that a greater proportion of the newer entrants to nursing are older, married, and have children.

Whereas approximately 60 percent of diploma and BSN graduates are single, approximately 60 percent of associate degree graduates are married (Figure 11). Moreover, the percentage of separated or divorced associate degree graduates is much greater than the others. Additionally, the presence of dependent children is the norm among ADN students. Regardless of marital status, the majority (53 percent) of associate degree graduates have children living at home.

Marital status and presence of children influence both employment status and activity status. This means that the associate degree graduate is more likely to be voluntarily unemployed due to family obligations (note that this number is quite small), and those who are working are more likely to work part-time. Indeed, as students, associate degree students are more likely to attend nursing school on a part-time basis as compared to the BSN or diploma student (Figure 12).

A second important characteristic of the associate degree student is their age (Figure 13). The current median age for the ADN graduate is 31 whereas the average age of the baccalaureate and diploma prepared graduate is 23. It is not, however, entirely clear what the effect of age will be on lifetime employment. For example, the older new graduates will have fewer years of labor force participation as nurses than their younger counterparts.

POLICY IMPLICATION FOR NURSING EDUCATION AND NURSING SUPPLY

The dramatic changes in the nursing school population are affecting the composition of the nursing supply (Figure 14). The long-term downward trend observed among diploma schools has significantly altered the educational preparation of the current supply. In 1977, 75 percent of the then 1.4 million RNs were prepared at the diploma level; 11 percent were AD prepared. By 1988, the proportion of the RN supply prepared by diploma fell to just 49 percent. By 1988, 28 percent of the nation's RNs were AD prepared. The proportion of BSN graduates grew steadily from 14 percent in 1977 to 22 percent in 1988.*

All too often, discussions of supply or shortages of nurses fail to address the issue of geographic distribution. Indeed, it is possible that a situation can exist where the supply of RNs nationally is adequate to meet demand yet the distribution is uneven, leaving pockets or regional shortages.

Keeping in mind that the number of graduations is only one component of supply, it is interesting to examine the geographic distribution of the contemporary nursing cohort. One third of the nation's new RNs are in the Southern region, 28 percent in the Midwest, 23 percent in the North Atlantic, and 15 percent in the West (Figure 15). This finding suggests that the North Atlantic region may be producing a disproportionate number of new RNs vis à vis its population. Further analysis of geographic mobility would identify the degree to which RNs from the North Atlantic are mobile and accepting positions in other regions of the country.

In sum, two important forces are transforming the composition of the nursing supply. The unabated decline in diploma graduations suggests that over time, as those currently prepared at the diploma level retire, the proportion of diploma RNs within the supply will be radically reduced. Concomitantly, the growth of associate degree and basic baccalaureate programs suggests that in the future there will essentially be two groups of new RNs—the older, married associate degree graduates and the younger, single baccalaureate graduates.

The growing presence of RNs prepared at the associate degree level poses its own challenges to the health care system. To be sure, associate degree educators are to be credited with developing creative programs to prepare their graduates for careers in long-term care and the care of AIDS patients, just to name two. In addition, associate degree programs have been quite successful at recruiting non-traditional, that is, older students.

However, as the health care environment grows increasingly complex with greater reliance on technological innovations, nurses with more sophisticated preparation are required. For those RNs desiring positions in administration and management, or in quality assurance and case management, baccalaureate education is a must. While opportunities for career mobility in nursing are extensive, they are often open exclusively to the RN with baccalaureate and higher degrees. For the associate degree graduate this means additional education. From the baccalaureate educators' perspective this confirms the need for significant efforts to recruit, retain, and support RNs to complete their advanced education. The phenomenal growth in baccalaureate education for RNs is evidence that both parties, students and educators, are responding to this need.

TRENDS IN BACCALAUREATE EDUCATION

Since baccalaureate preparation is not required for RN licensure, baccalaureate nursing education presents a complex phenomena. First, basic baccalaureate nursing programs (BSN) are available to first-time nursing students for pre-licensing preparation. Then there are baccalaureate nursing programs where RNs, previously prepared at diploma or associate degree levels, can continue to obtain their bachelor's degree.

These special programs, termed BRN or BS-RN, come in two varieties. Almost 140 programs are designed exclusively for returning RNs and do not admit basic, non-RNs, at all. The majority of returning RNs, however, are mainstreamed with non-RNs in the nation's 488 basic baccalaureate programs.

In recent years, the number of RNs enrolled in baccalaureate programs has mushroomed. In 1979, a total of 27,573 RNs were attending BSN programs; by 1989, the figure rose to 41,674. This trend should be understood within the context of several important developments within nursing. First, it has become increasingly evident that the environment in which nurses practice is rapidly changing with greater emphasis on high-tech care. It has, therefore, become desirable, if not necessary, for RNs interested in career mobility to extend their education to the baccalaureate level.

* Note that 1 percent of the nursing supply represents approximately 20,000 people.

From the employer's viewpoint, the baccalaureate nurse is a more versatile employee capable of performing more sophisticated and complex tasks. To that end, many employers now offer incentives to RNs to return for the BSN degrees.

Finally, as admissions to basic baccalaureate education began to drop in the last few years, many basic programs sought BRN students to bolster their enrollments. In fact, there are virtually no baccalaureate programs opened exclusively to first-time, basic students. Admission of RNs to basic BSN programs, however, has created a range of new challenges to nursing educators, particularly those associated with adult learning.

In 1989, baccalaureate degrees were conferred on a total of 30,543 individuals: 62 percent or 18,997 were first-time, basic nursing students and the remaining 38 percent or 11,546 were returning RNs. The proportion of basic students among baccalaureate graduates has actually shrunk in recent years suggesting that educational mobility among RNs prepared at the diploma or associate degree level is a growing phenomenon (Figure 16). Nursing has a proud tradition of offering opportunities for career mobility for its members and nowhere is this more clear than in baccalaureate education.

BRN students are, no doubt, different from their basic BSN peers. As older, (often married with children) working individuals, BRN students are more likely to attend school part-time and take evening or weekend classes (Figure 17). Hence, their progress through the educational pipeline is often at a slower pace.

One of the more pressing challenges for baccalaureate education is the need to assist and expedite the BRN students' progress. Often, employers who would otherwise prefer to hire an RN with a bachelor's degree cannot recruit such individuals. Moreover, the *Seventh Report to the President and Congress* concludes (as did previous editions of the report) that the most severe shortages in the future will be among baccalaureate and higher degree nurses. In the final analysis, all parties interested in promoting baccalaureate nursing education—employers, educators, and the federal government—must seriously address issues of recruiting and retaining both basic baccalaureate students and, perhaps more importantly, returning RNs.

Baccalaureate education for RNs, therefore, represents both the promise and dilemma of nursing. The promise for the BRN student includes opportunities for greater professionalism, career advancement, and increased autonomy and respect. The dilemma for the student and institution represents the multitude of obstacles that currently impair the progress of these desirable students.

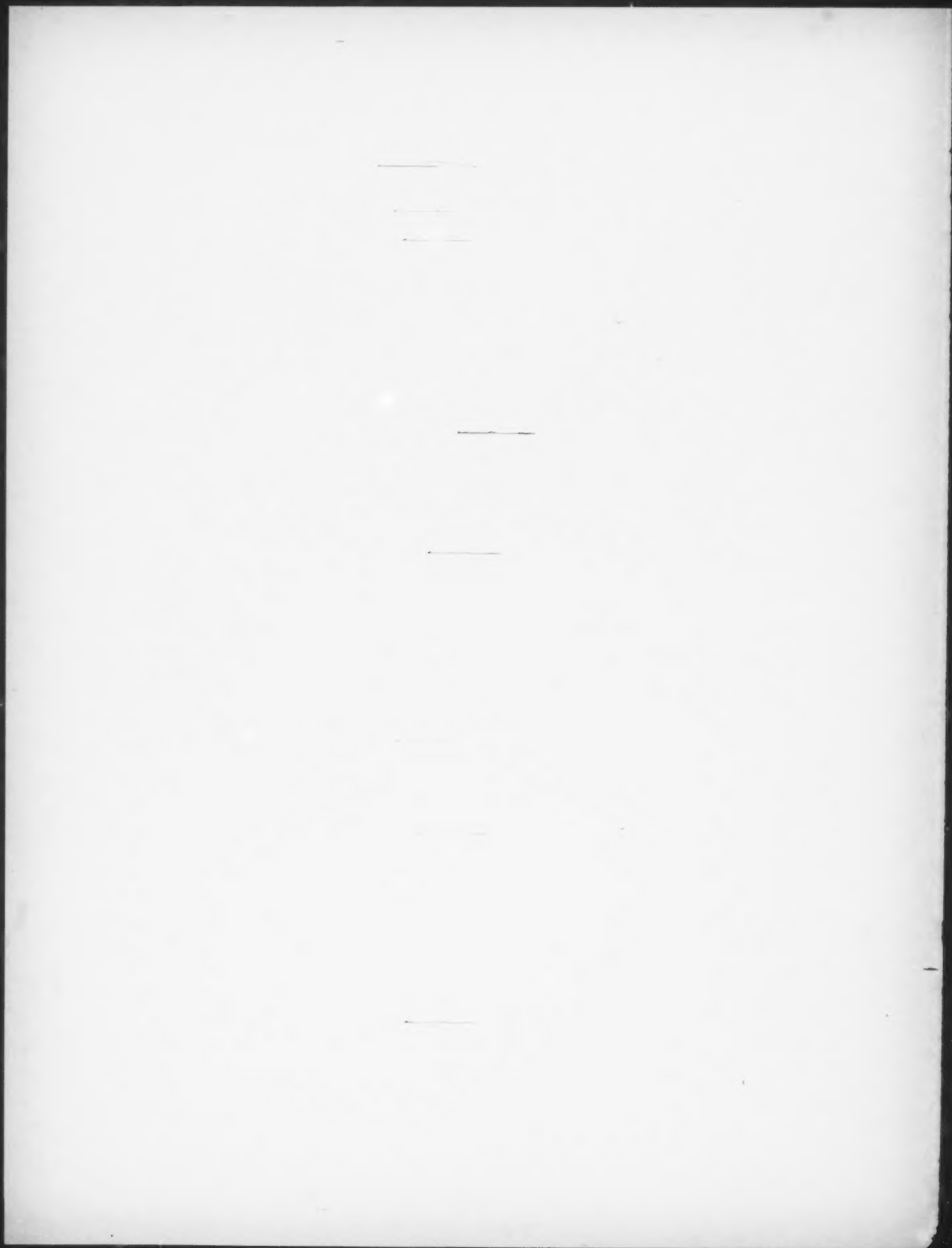
Peri Rosenfeld, PhD
Vice President
Division of Research

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Section 1-2
Graphs



Admissions to Basic RN Programs: 10-Year Trend

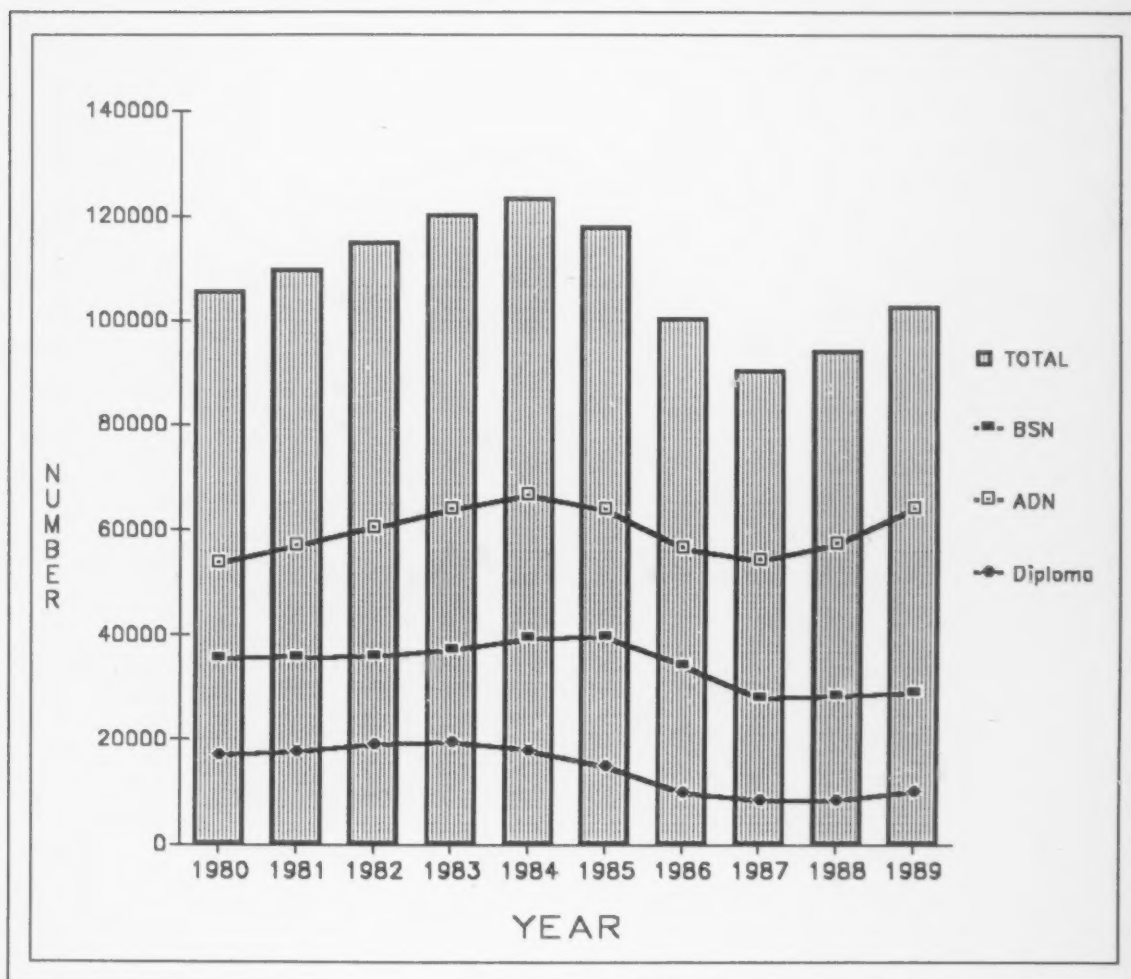


Figure 1. Admissions to Basic RN Programs: 10-Year Trend

Annual admissions of new, first-time nursing students rose 9 percent between 1988 and 1989, and now stand at 103,025. Diploma programs, after many years of severe declines, reported an amazing 19 percent increase in new admissions this year, representing over 10,000 new students in their ranks. Associate degree programs reported a second year of rising admissions bringing that figure (63,973) back to its 1985 position. And while admissions in baccalaureate programs rose modestly this year (2 percent), they are clearly on an upward trend.

The current number of new admissions to nursing is reminiscent of the 1980 figure when nursing programs were beginning to experience unprecedented growth. It is not at all clear whether future admissions will come close to or exceed the record set in 1984 when new admissions peaked at 123,824.

Enrollments in Basic RN Programs: 10-Year Trend

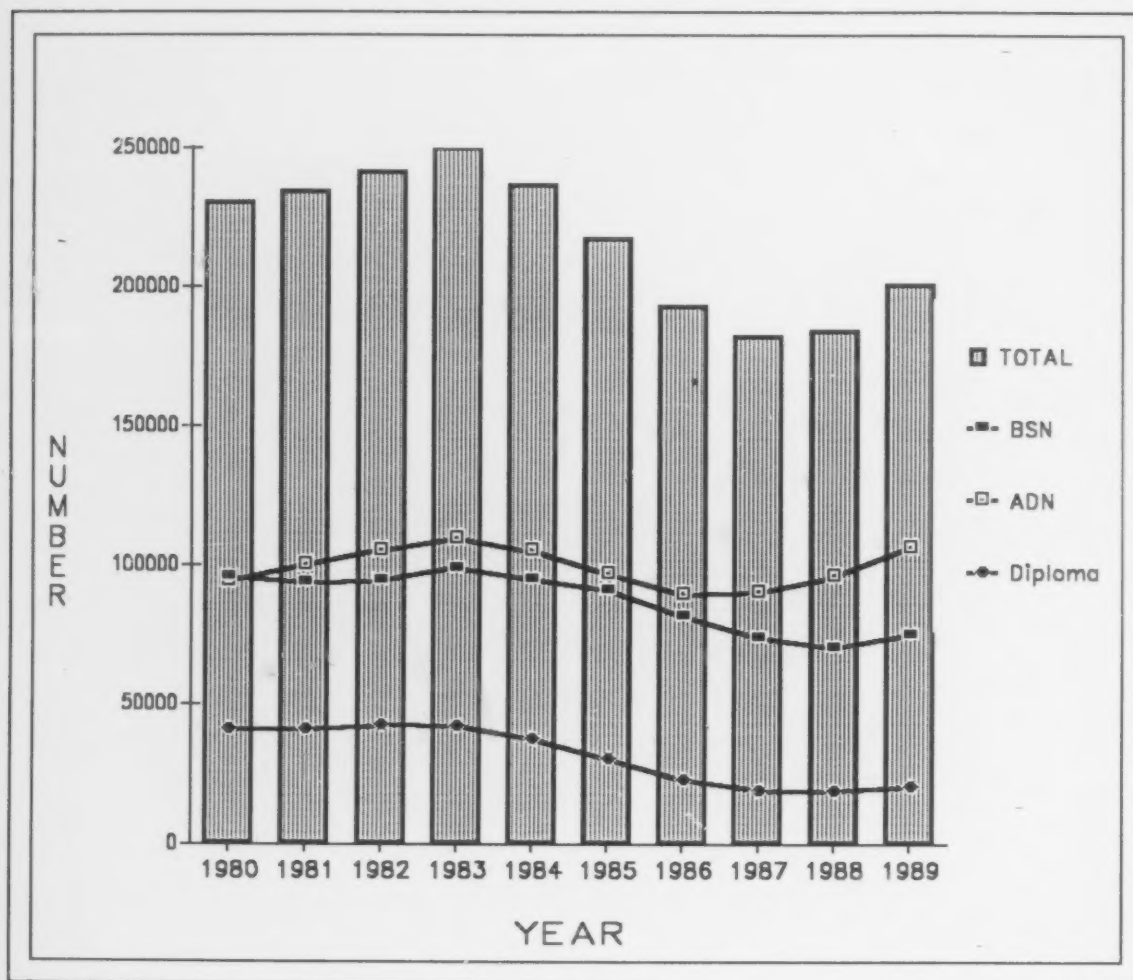


Figure 2. Enrollments in Basic RN Programs: 10-Year Trend

In Fall 1989, enrollments (i.e., the total number of students attending the nation's nursing schools) stood at 201,458, marking an 8.9 percent increase over the 1988 figure. All three types of RN preparation programs reported increases in enrollments in 1989. Associate degree programs lead the growth in enrollments with a 10.6 percent rise representing 106,865 students. Diploma programs, after almost two decades of decline, report 20,418 enrollees in Fall 1989 resulting in an astounding 8.3 percent jump over 1988 levels. Enrollments in basic baccalaureate programs rose 6.8 percent and now stand at 74,865.

Despite the upward trend, it is important to note that the current figure remains markedly lower than the enrollments of the early 1980s. Supplementary data on fall admissions, the number of new students entering nursing school, suggests that enrollments will continue to rise in Fall 1990.

Graduations from Basic RN Programs: 10-Year Trend

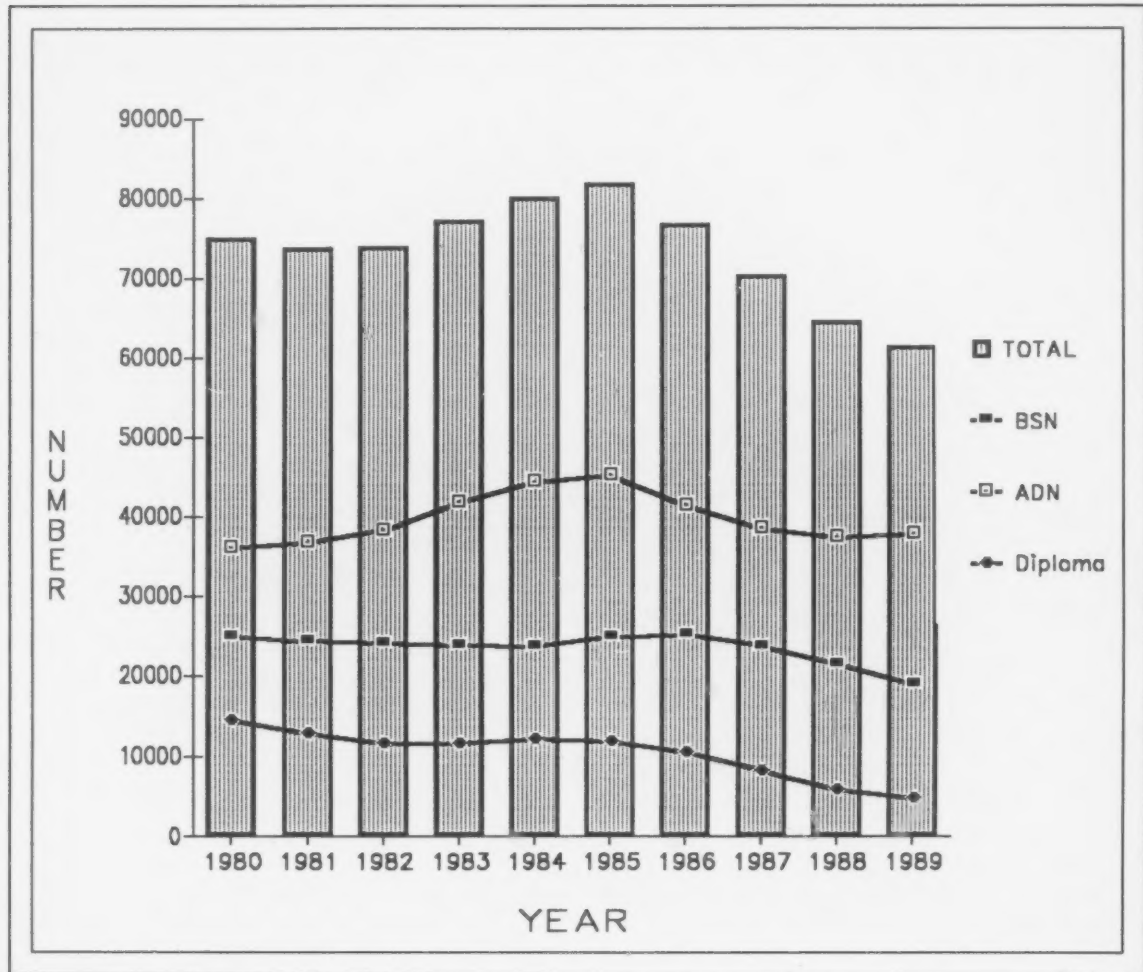
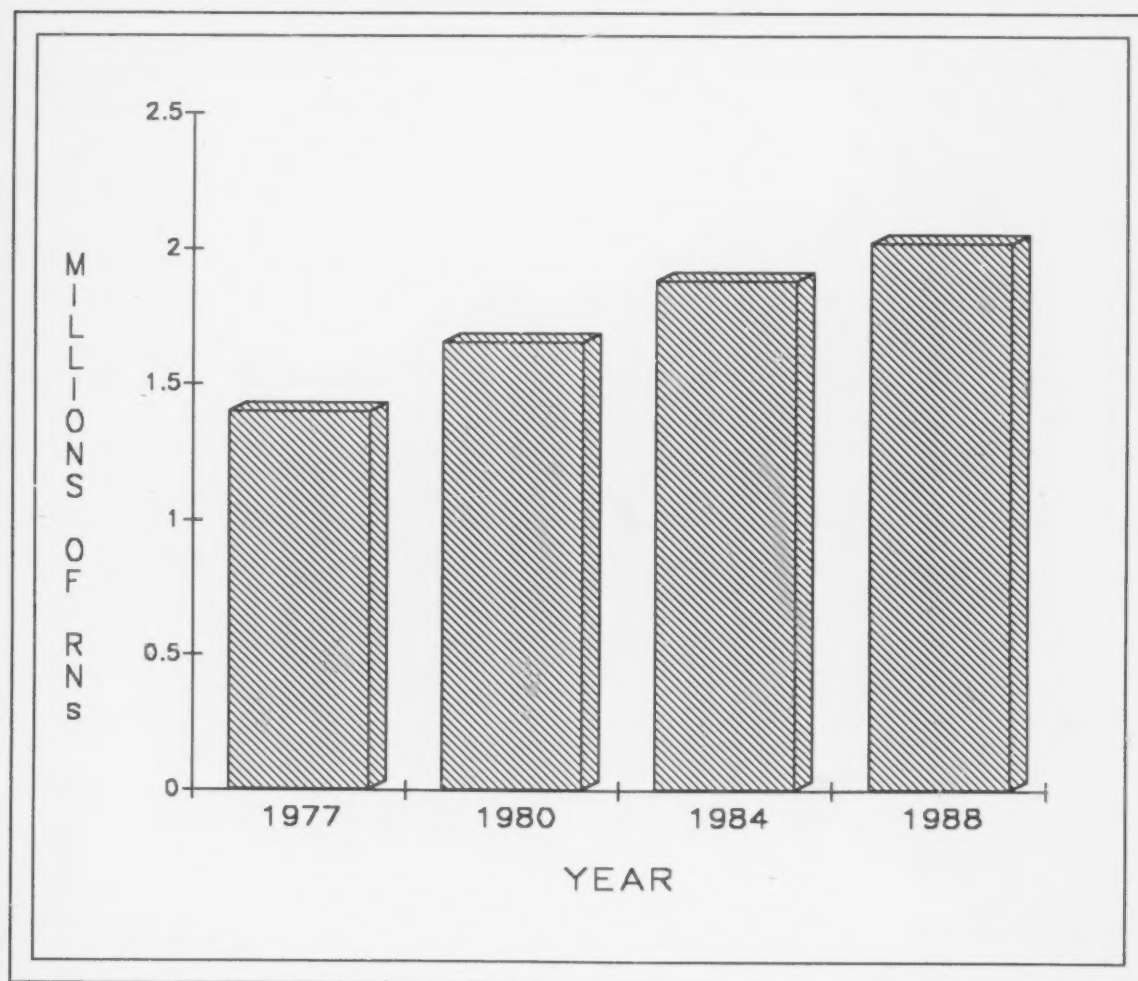


Figure 3. Graduations from Basic RN Programs: 10-Year Trend

Graduations from basic RN programs continued their downward trend for the fourth consecutive year, registering at 61,660 for 1989. This figure is the lowest since 1973 when graduations, in the middle of an upward trend, stood at 58,881. Associate degree graduations rose a modest 1.2 percent, while diploma and baccalaureate graduations dropped 18.7 percent and 11.6 percent, respectively.

Graduations are expected to improve in the near future as the growing number of new admissions progress through the educational pipeline. Note however that graduations hit an all-time high in 1985 with over 82,000 new graduates entering the nursing labor force. It is too early to tell whether such heights will be achieved again.

RNs in the U.S. by Program Type: 1977, 1980, 1984, and 1988



Source: 1988 Sample Survey of Registered Nurses. Division of Nursing, BHP, DHHS.

Figure 4. RNs in the U.S. by Program Type: 1977, 1980, 1984, and 1988

The number of individuals holding RN licenses has grown from 1.4 million in 1977 to over 2 million in 1988, making nursing the largest group of health care providers in the nation. Remarkably, over 80 percent of those with licenses are currently employed in positions that require RN licensure. These two facts, the increasing supply and the excellent activity rate among RNs, confirm that the current nursing shortage is the result of improper utilization and increasing demand for RNs in the contemporary health care delivery system. Indeed, so long as the number of new graduates exceed the number of RNs exiting the supply through retirement, death, or non-renewal of license, the nursing supply will continue to expand.

Percentage of Basic RN Programs in the U.S. by Program Type, 1989

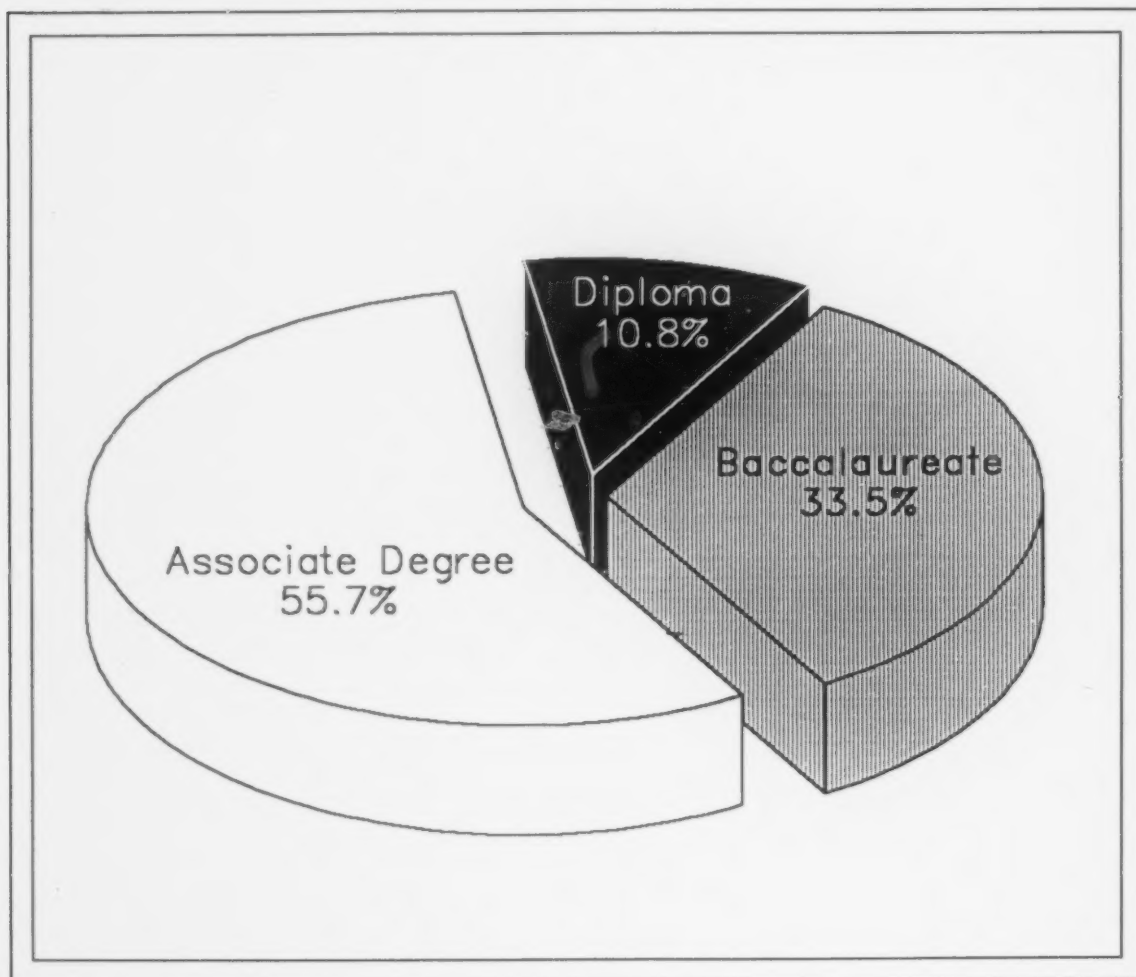


Figure 5. Percentage of Basic RN Programs in the U.S. by Program Type, 1989

Associate degree nursing programs comprise well over half the 1,457 basic RN educational programs in the nation, while diploma programs, once the predominant form of nursing education, represent a mere 11 percent of the total. Basic baccalaureate programs that prepare students for RN licensure make up a third of America's nursing programs. The role of associate degree education in nursing is dramatically changing the overall composition of the nursing supply. (See Executive Summary for discussion of this issue.)

In 1989, 812 associate degree programs were in operation within the United States. There are currently 488 basic baccalaureate programs preparing both first-time nursing students as well as RNs returning for their bachelor's degree and 157 hospital-based diploma programs nationwide.

Percentage of RN Graduates by Program Type: 1985 and 1989

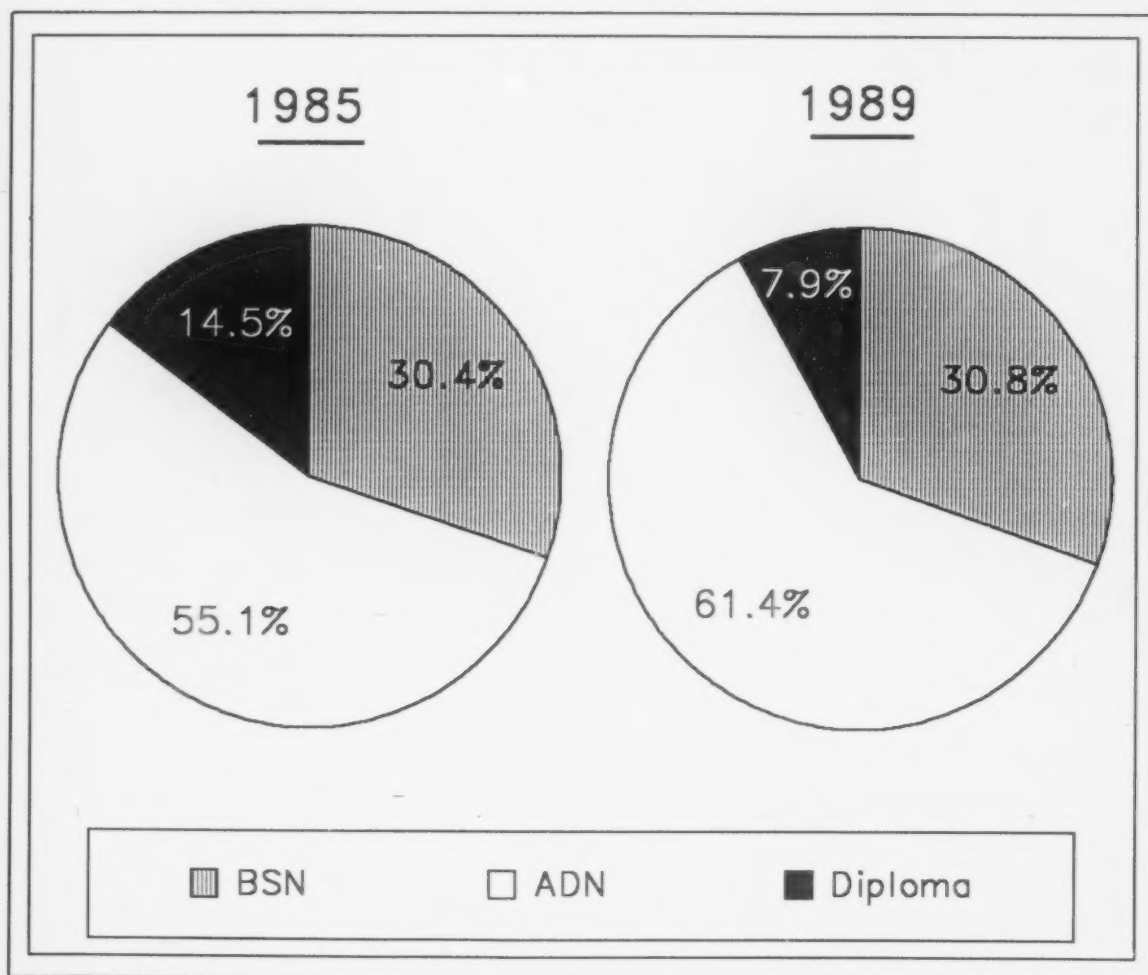


Figure 6. Percentage of RN Graduates by Program Type: 1985 and 1989

The proportion of new RNs to graduate from associate degree programs has been growing consistently since the 1950s. Over the past five years alone, the proportion of associate degree graduates grew from 55 percent in 1985 to 61 percent in 1989. Most of the growth in AD graduations has been at the expense of diploma programs. Throughout this period, baccalaureate graduations have steadily remained at about 30 percent of the whole. A total of 37,837 individuals graduated from associate degree programs in 1989. The corresponding figures for BSN and diploma programs were 18,997 and 4,826 respectively.

Regional Distribution of RN Programs, 1989

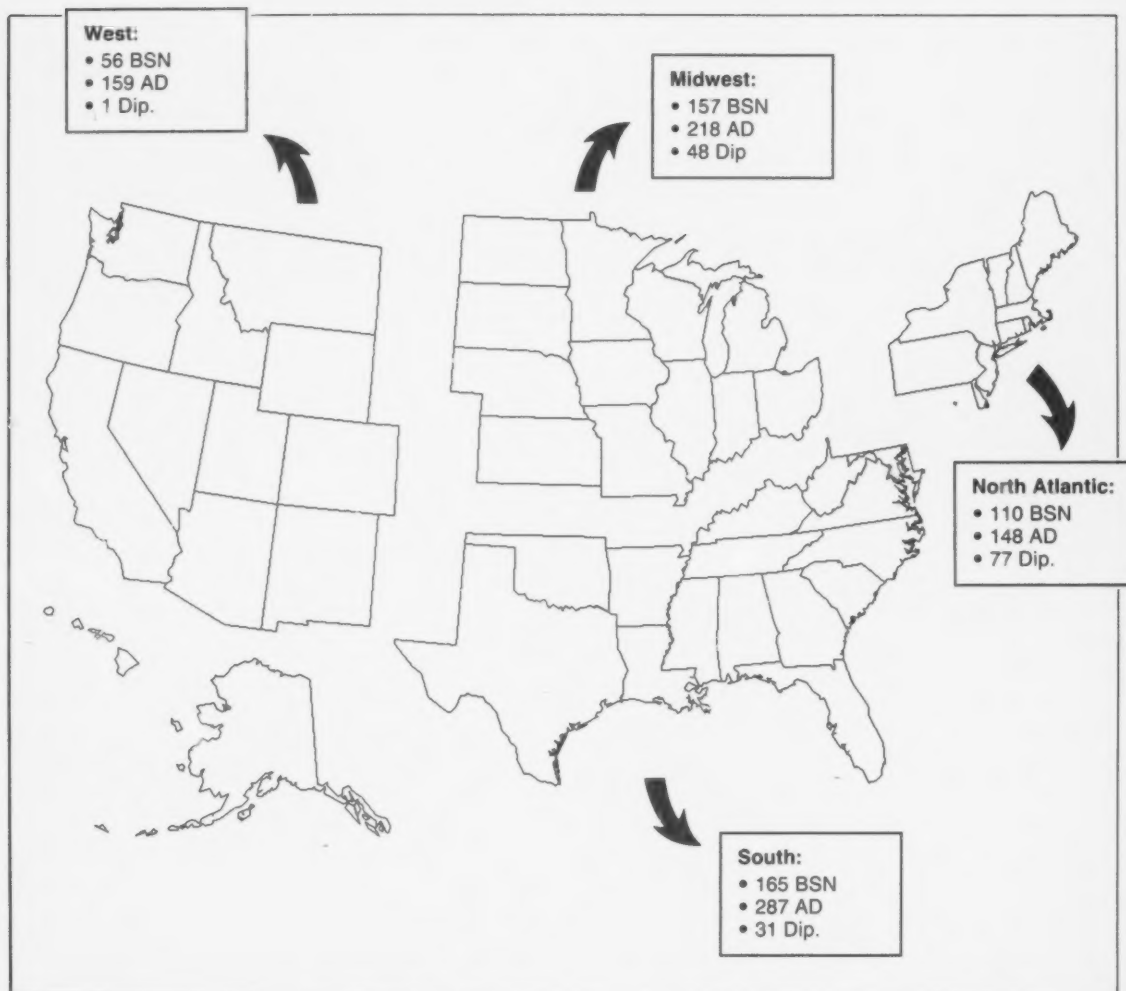


Figure 7. Regional Distribution of RN Programs, 1989

One-third, or 483, of the nation's 1,457 nursing educational programs are located in the southern region. The Midwest and North Atlantic contain 29 percent and 23 percent of the total number of programs respectively, and only 15 percent are situated in the West.

It is noteworthy that one-half of America's 157 diploma programs are located in the north atlantic region.

Percentage of RN Programs by Region and Program Type, 1989

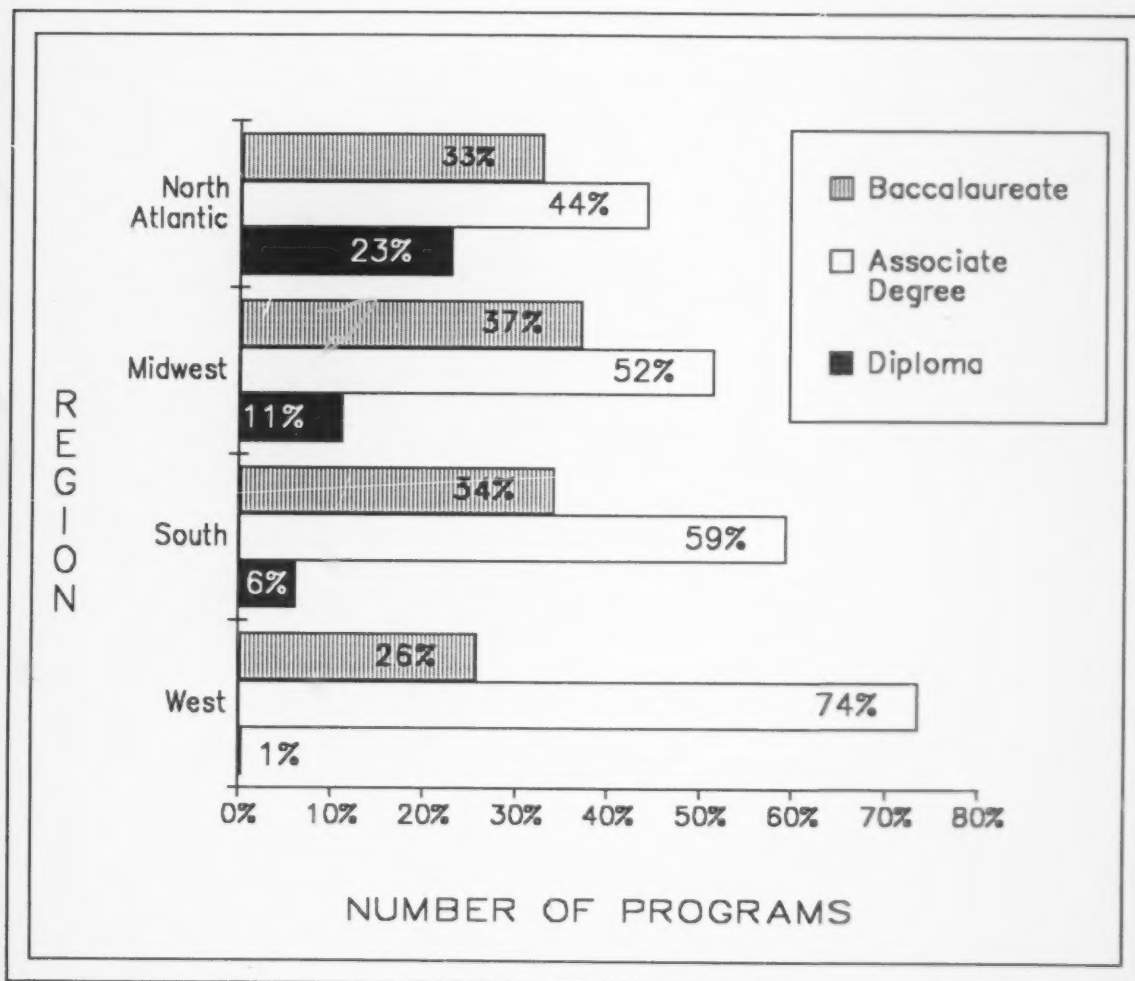


Figure 8. Percentage of RN Programs by Region and Program Type, 1989

The majority of programs in each region are associate degree programs. Almost three quarters of the nursing programs in the western region prepare students for the associate degree as over half the programs in the southern and the midwest regions. Basic baccalaureate programs comprise between 26 percent and 37 percent of each region's total.

Number of RN Programs by Type of Financial Support, 1989

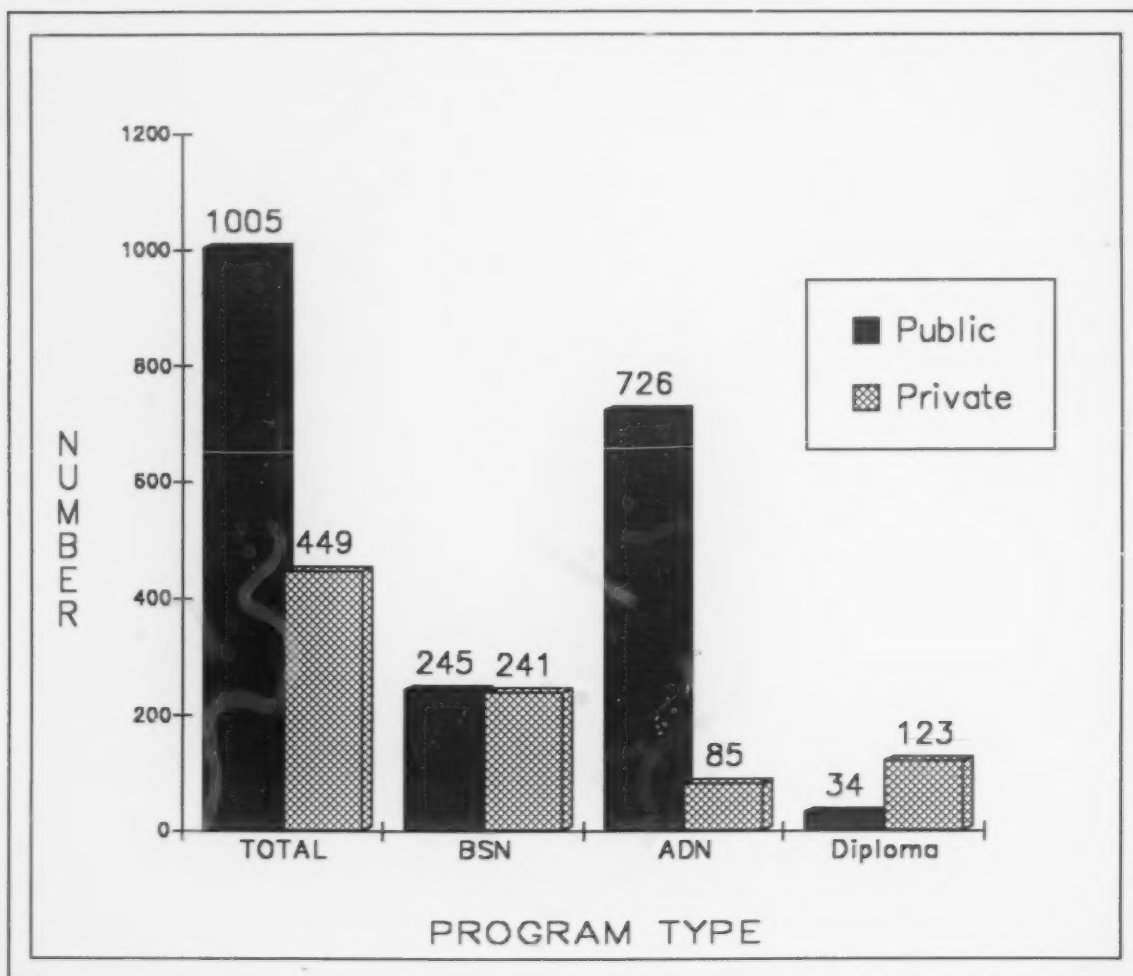


Figure 9. Number of RN Programs by Type of Financial Support, 1989

The overwhelming majority (89 percent) of associate degree programs are publicly funded. On the other hand, the majority of diploma programs (78 percent) are privately funded. Baccalaureate programs are evenly distributed between private and public institutions.

Annual Resident Tuition by Financial Support and Program Type, 1989

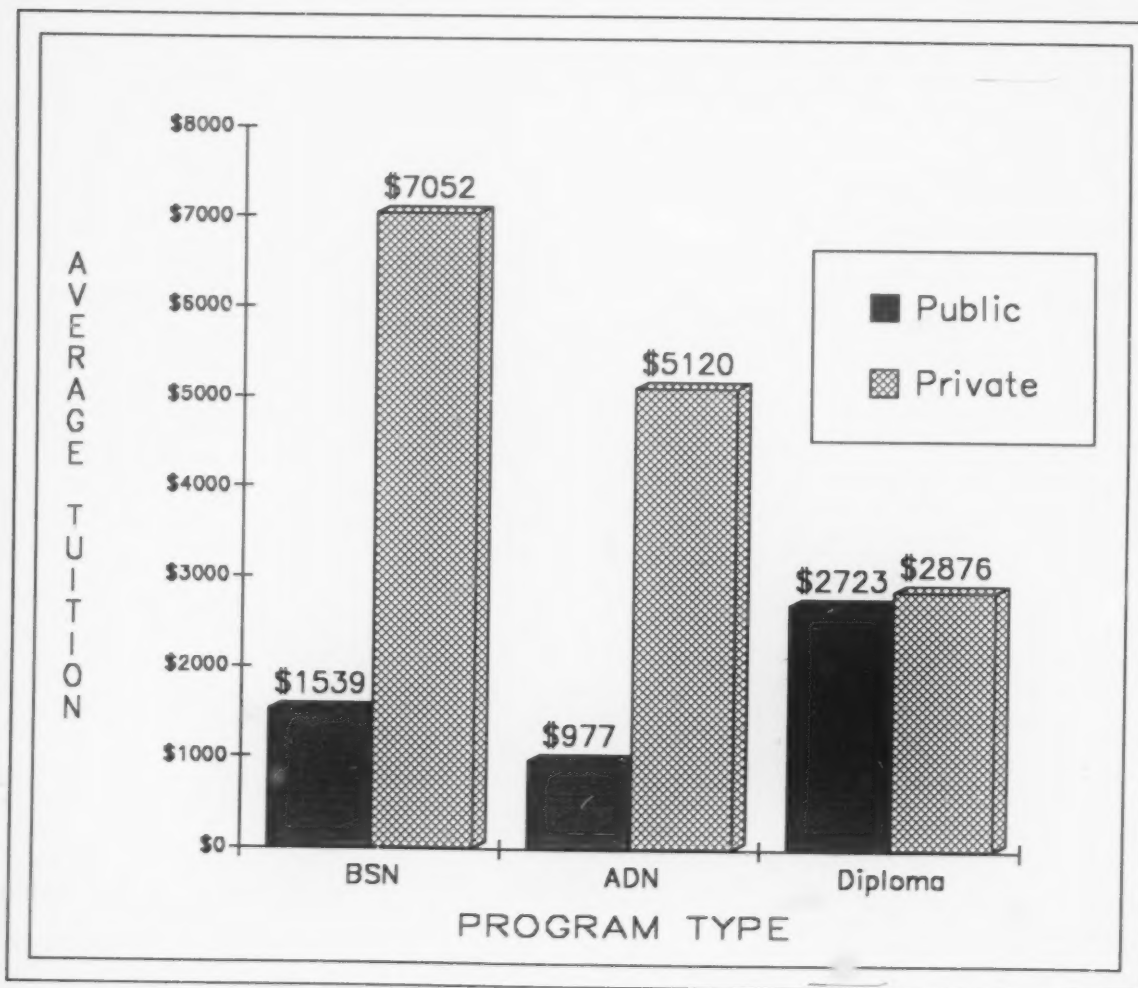
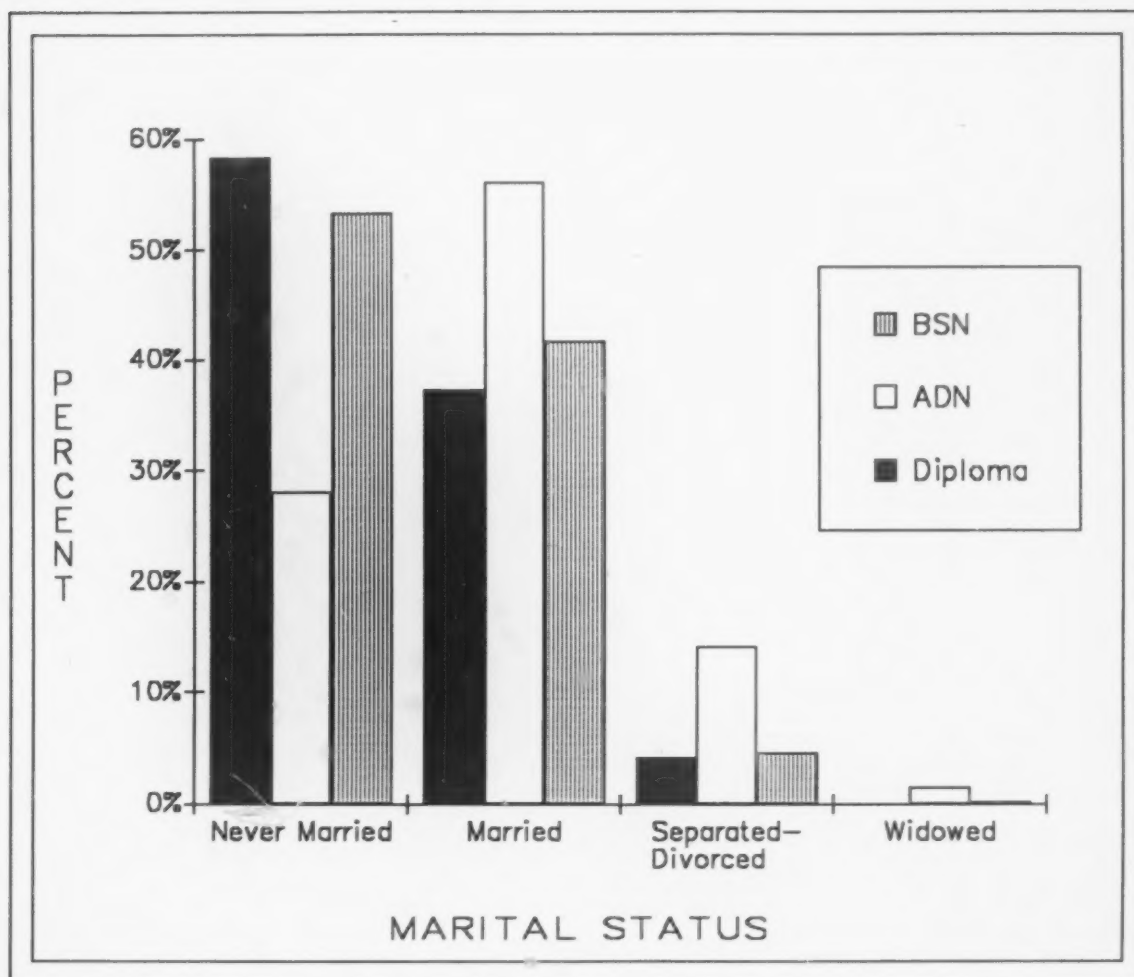


Figure 10. Annual Resident Tuition by Financial Support and Program Type, 1989

Wide disparities in tuition exist between public and private ADN and BSN programs. The average tuition at both private and public diploma programs, however, is essentially the same.

Marital Status of Newly Licensed Nurses by Program Type, 1988



Source: *Profiles of the Newly Licensed Nurse*, Peri Rosenfeld, National League for Nursing, NY, 1989

Figure 11. Marital Status of Newly Licensed Nurses by Program Type, 1988

Approximately 60 percent of newly licensed nurses prepared at baccalaureate and diploma programs are single. Associate degree graduates are more likely to be married, separated/divorced, or widowed than their BSN or diploma counterparts.

Percentage of Full-time and Part-time Enrollments in RN Programs by Program Type, 1989

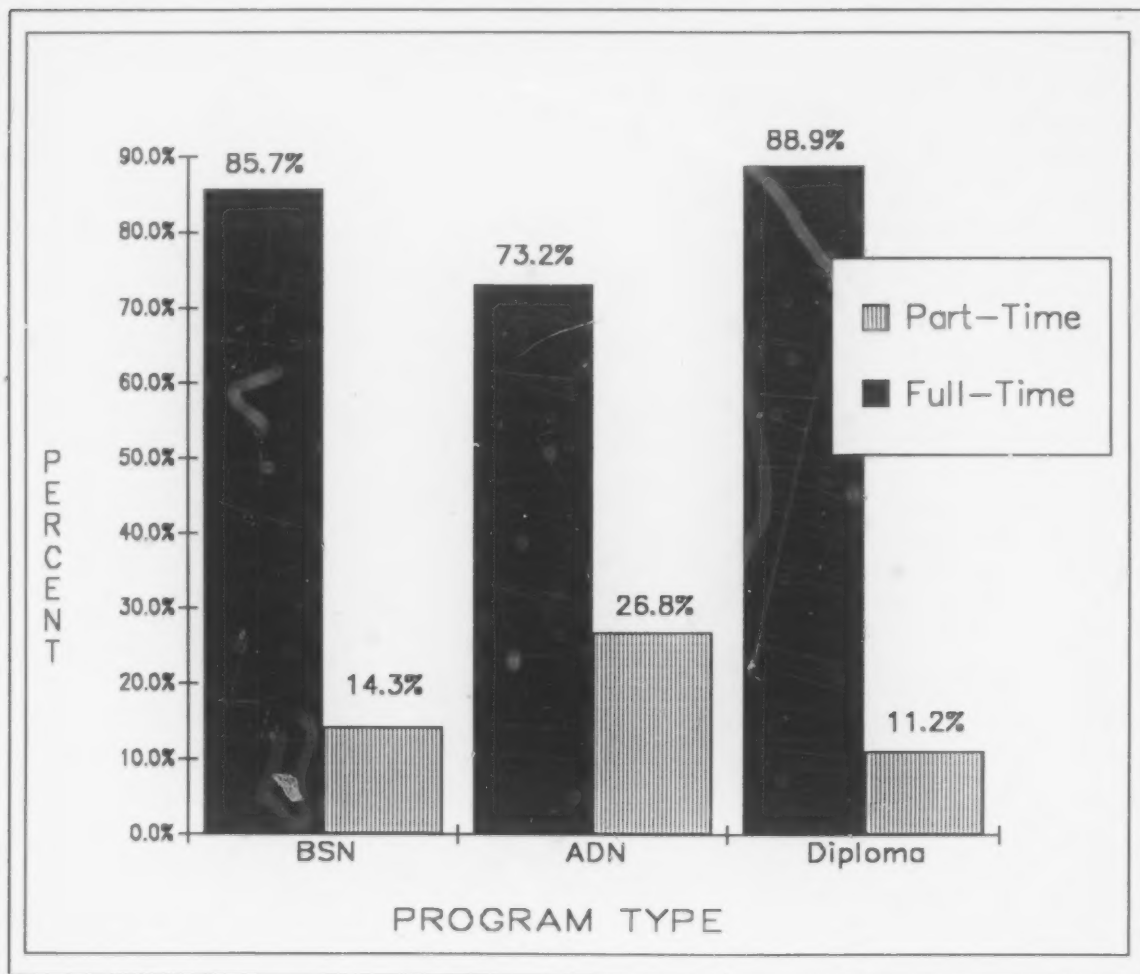
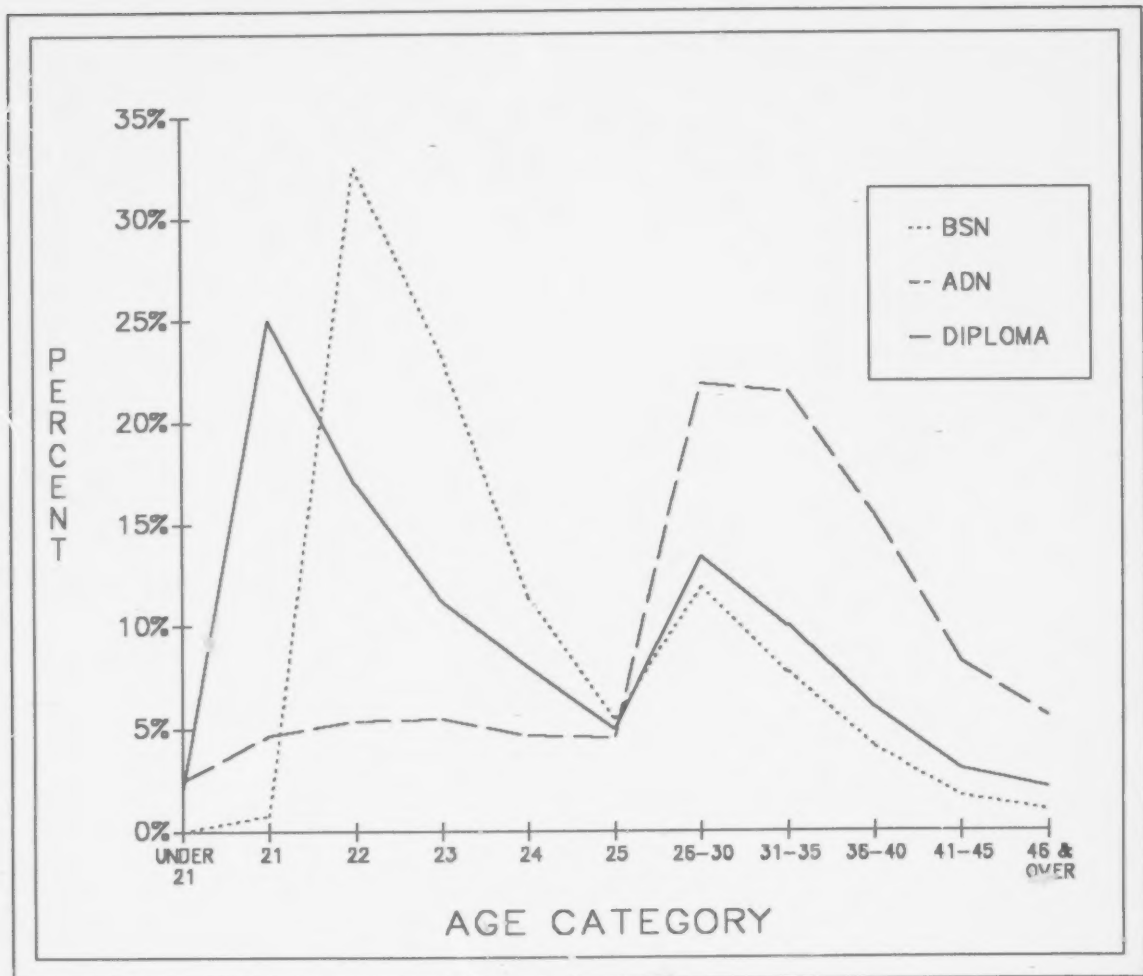


Figure 12. Percentage of Full-time and Part-time Enrollments in RN Programs by Program Type, 1989

Students at the nation's associate degree programs are more likely to attend nursing school part-time than other basic nursing students. Almost 27 percent of AD students are enrolled part-time whereas 14 percent of the BSN students and 11 percent of diploma students are part-timers.

Age of Newly Licensed Nurses by Program Type, 1988

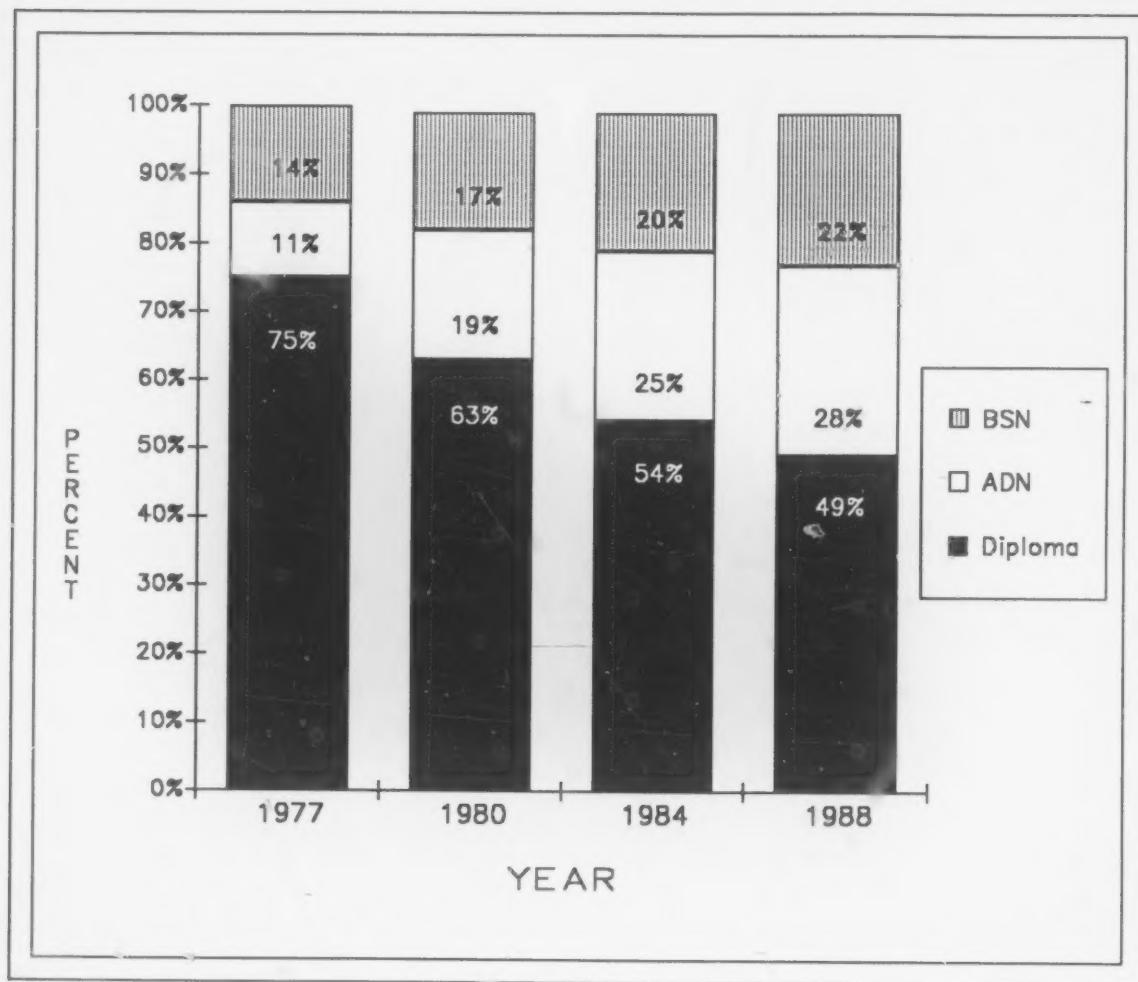


Source: Profiles of the Newly Licensed Nurse. Peri Rosenfeld. National League for Nursing. NY. 1989

Figure 13. Age of Newly Licensed Nurses by Program Type, 1988

The median age of all newly licensed nurses is 26. However, the median age for the associate degree graduate (31) is greater than it is for the BSN or diploma graduate whose average age is 23. This suggests that the decision to attend nursing school is made soon after high school for diploma and BSN students whereas associate degree students make that decision later in adulthood.

Percentage of RNs in the U.S. by Type of Basic Nursing Education, 1988



Source: 1988 Sample Survey of Registered Nurses. Division of Nursing, BHPH, DHHS

Figure 14. Percentage of RNs in the U.S. by Type of Basic Nursing Education, 1988

The proportion of diploma prepared RNs within the nursing supply continues to decline. On the other hand, the percentage of RNs prepared at the associate degree and baccalaureate level is rising significantly. These trends are expected to persist as greater numbers of diploma programs close while ADN and BSN programs flourish.

Regional Distribution of Graduates from Basic RN Programs, 1989

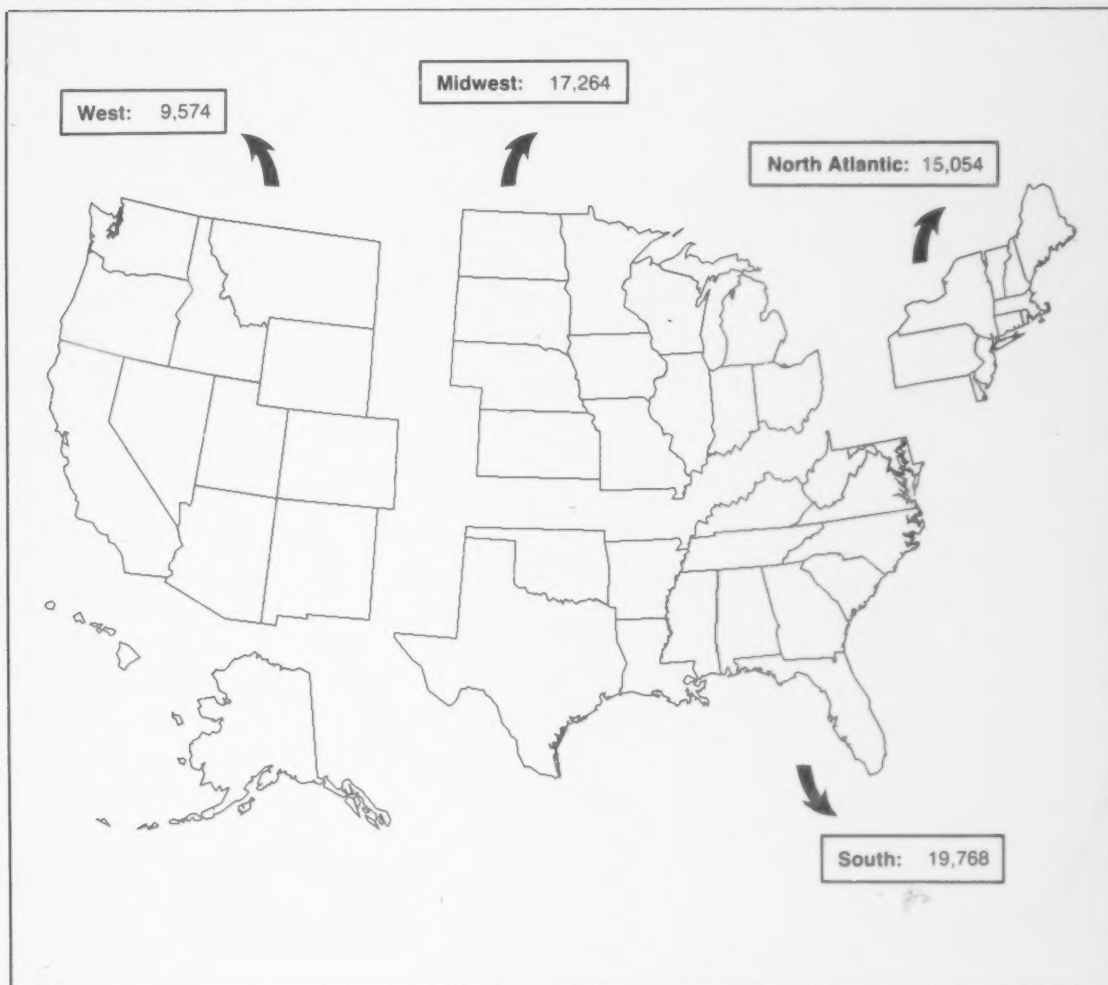


Figure 15. Regional Distribution of Graduates from Basic RN Programs, 1989

The South produces approximately one third of the nation's new RNs and 28 percent and 24 percent of the graduates originate from the midwest and north atlantic regions, respectively. Just 16 percent of the nation's RN graduates were educated in the west.

Graduations of Returning RNs by Previous Credential: 5-Year Trend

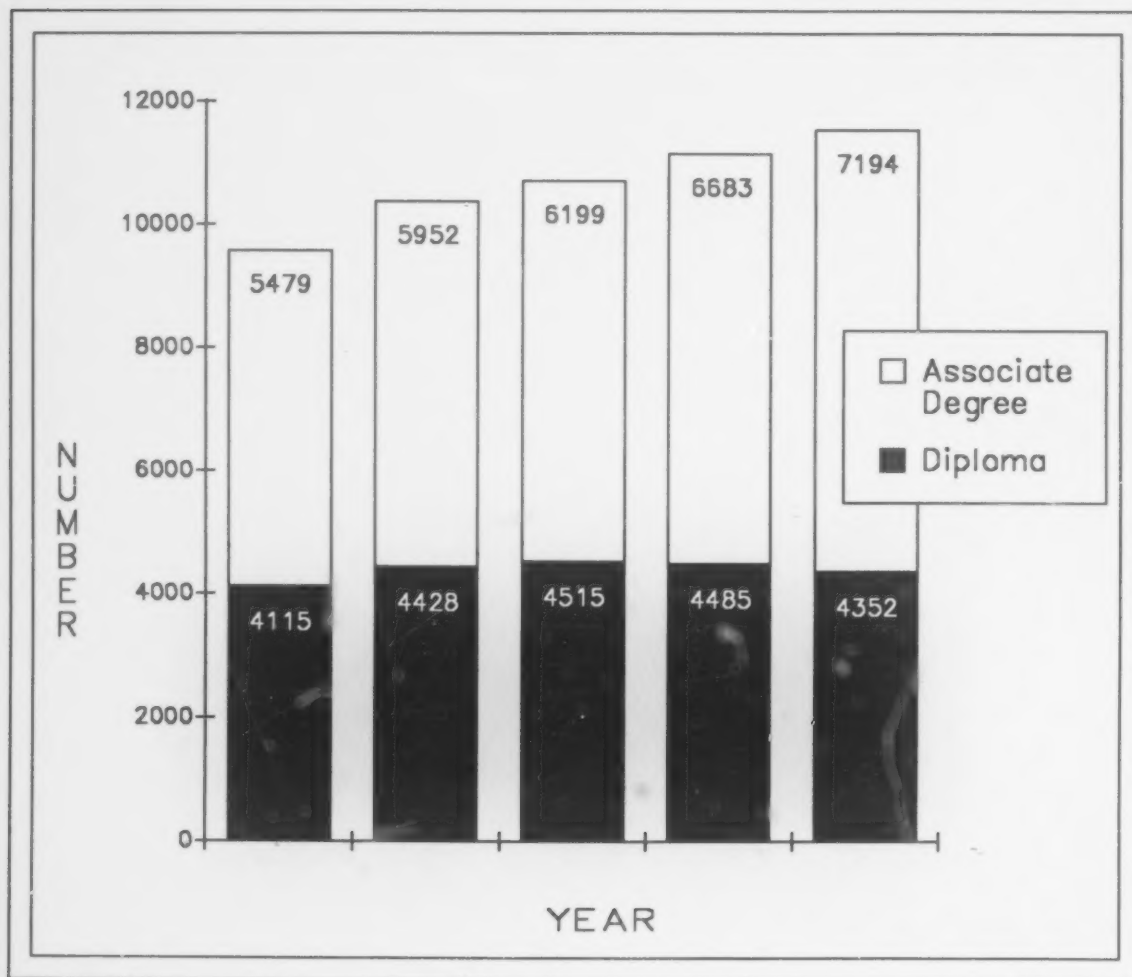


Figure 16. Graduations of Returning RNs by Previous Credential: 5-Year Trend

A greater proportion of the RN graduates from baccalaureate programs were originally prepared at the associate degree level. This trend is expected to persist as the number of diploma graduates continues to fall.

Percentage of Full-Time and Part-Time Enrollments in Baccalaureate Programs by Type of Student, 1985 and 1989

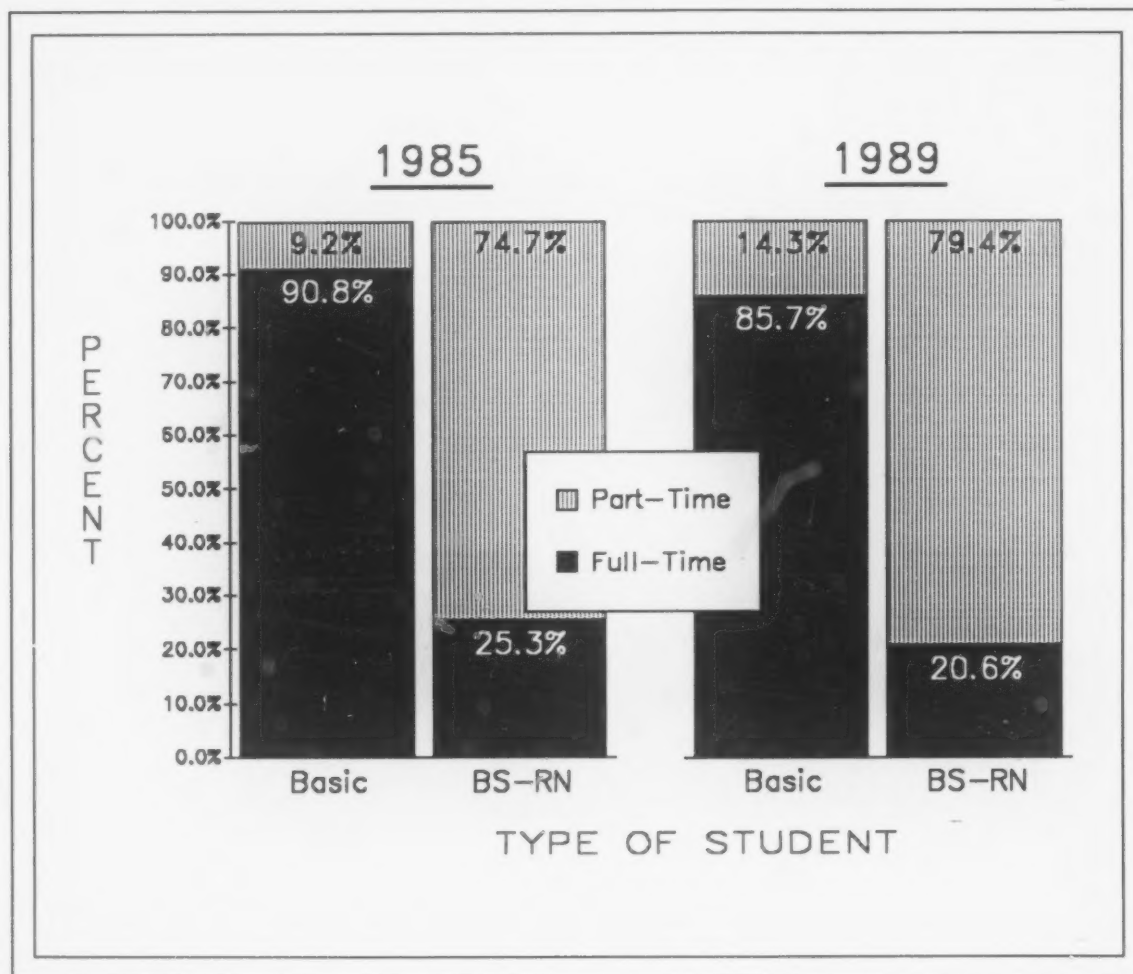
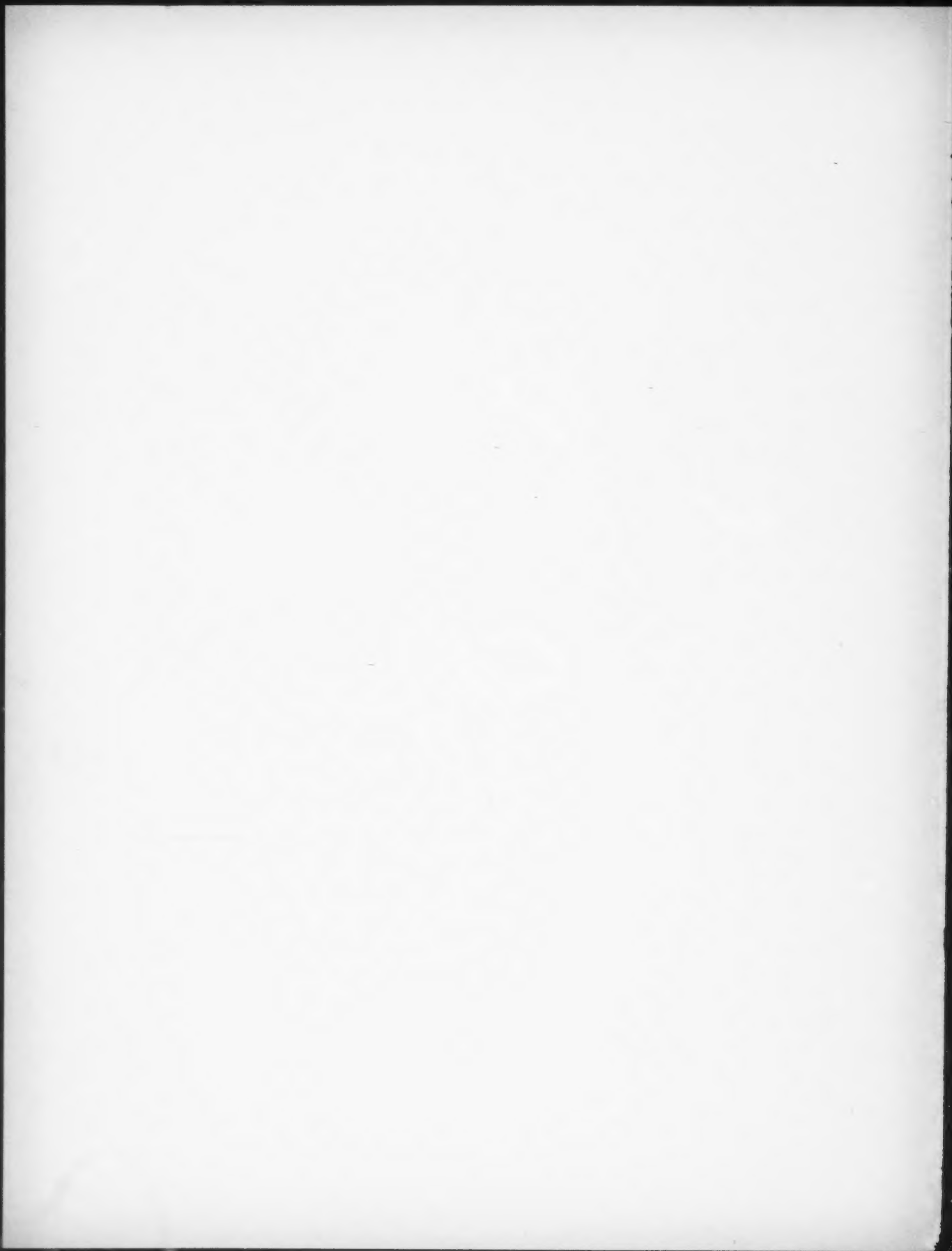


Figure 17. Percentage of Full-Time and Part-Time Enrollments in Baccalaureate Programs by Type of Student, 1985 and 1989

The proportion of basic BSN students enrolled full-time fell 5 percent over the past five years. Concomitantly, RNs returning for their bachelor's degree are even more likely to attend part-time than they were five years ago. Both these figures suggest that the trend toward part-time enrollment is increasing for both first-time and returning BSN students.



Section 1-3
Numeric Tables



Table 1
BASIC RN PROGRAMS AND PERCENTAGE CHANGE FROM PREVIOUS YEAR,
BY TYPE OF PROGRAM: 1970 TO 1989¹

YEAR	NUMBER OF SCHOOLS	ALL BASIC RN PROGRAMS		BACCALAUREATE PROGRAMS		ASSOCIATE DEGREE PROGRAMS		DIPLOMA PROGRAMS	
		Number of Programs	Percent Change	Number of Programs	Percent Change	Number of Programs	Percent Change	Number of Programs	Percent Change
1970	1,330	1,340	+1.2	267	+6.0	437	+13.8	636	-7.6
1971	1,338	1,349	+0.7	282	+5.6	484	+10.8	583	-8.3
1972	1,350	1,362	+1.0	290	+2.8	532	+9.9	540	-7.4
1973	1,348	1,360	-0.1	302	+4.1	565	+6.2	493	-8.7
1974	1,347	1,358	-0.1	310	+2.6	588	+4.1	460	-6.7
1975	1,349	1,362	+0.3	326	+5.2	608	+3.4	428	-7.0
1976	1,337	1,358	-0.3	336	+3.1	632	+3.9	390	-8.9
1977	1,339	1,356	-0.1	344	+2.4	645	+2.1	367	-5.9
1978	1,340	1,358	+0.1	348	+1.2	666	+3.3	344	-6.3
1979	1,354	1,374	+1.2	363	+4.3	678	+1.8	333	-3.2
1980	1,360	1,385	+0.8	377	+3.9	697	+2.8	311	-6.6
1981	1,377	1,401	+1.2	383	+1.6	715	+2.6	303	-2.6
1982	1,406	1,432	+2.2	402	+5.0	742	+3.8	288	-5.0
1983	1,432	1,466	+2.4	421	+4.7	764	+3.0	281	-2.4
1984	1,445	1,477	+0.8	427	+1.4	777	+1.7	273	-2.8
1985	1,434	1,473	-0.2	441	+3.3	776	-0.1	256	-6.2
1986	1,426	1,469	-0.3	455	+3.2	776	0.0	238	-7.0
1987	1,406	1,465	-0.3	467	+2.6	789	+1.7	209	-12.2
1988	1,391	1,442	-1.6	479	+2.6	792	+0.3	171	-18.7
1989	1,429	1,457	+1.0	488	+1.9	812	+2.5	157	-8.2

¹ Excludes American Samoa, Guam, Puerto Rico, and the Virgin Islands.

Table 2
PUBLIC AND PRIVATE BASIC RN PROGRAMS, BY TYPE OF PROGRAM: 1980 TO 1989¹

PUBLIC AND PRIVATE NURSING PROGRAMS	NUMBER OF PROGRAMS									
	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989
All Programs	1,385	1,401	1,432	1,466	1,477	1,473	1,469	1,465	1,442	1,457
Public	861	870	902	916	935	942	950	970	979	1,005
Private	524	531	530	550	542	531	519	495	463	449
Baccalaureate	377	383	402	421	427	441	455	467	479	488
Public	198	196	203	210	213	217	227	235	239	245
Private	179	187	199	211	214	224	228	232	240	241
Associate Degree	697	715	742	764	777	776	776	789	792	812
Public	624	638	662	669	684	688	688	698	704	726
Private	73	77	80	95	93	88	88	91	88	85
Diploma	311	303	288	281	273	256	238	209	171	157
Public	39	36	37	37	38	37	35	37	36	34
Private	272	267	251	244	235	219	203	172	135	123

¹ Excludes American Samoa, Guam, Puerto Rico, and the Virgin Islands.

Table 3
ALL BASIC RN PROGRAMS, BY NLN REGION AND STATE: 1980 TO 1989¹

NLN REGION AND STATE	NUMBER OF PROGRAMS									
	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989
United States	1,385	1,401	1,432	1,466	1,477	1,473	1,489	1,485	1,442	1,457
North Atlantic	344	342	341	348	357	350	359	355	343	335
Midwest	409	417	426	431	431	433	429	424	415	423
South	440	449	465	480	484	485	478	481	475	483
West	192	193	200	207	205	205	203	205	209	216
Alabama	34	35	37	37	37	36	36	35	35	35
Alaska	2	2	2	2	2	2	2	2	2	3
Arizona	16	16	18	17	16	16	15	15	15	15
Arkansas	19	20	20	20	20	20	20	21	21	21
California	87	88	90	94	93	92	90	89	90	91
Colorado	12	12	12	12	12	14	13	12	12	12
Connecticut	19	18	18	18	18	18	18	18	18	18
Delaware	7	7	7	7	7	6	6	6	6	7
District of Columbia	7	7	6	6	6	6	6	6	5	5
Florida	34	34	35	39	40	39	40	40	40	40
Georgia	35	33	32	34	34	34	34	33	32	33
Hawaii	5	5	5	5	6	6	6	6	6	7
Idaho	6	6	6	6	6	6	6	7	7	7
Illinois	80	78	79	80	78	76	77	72	72	70
Indiana	30	29	30	31	37	37	36	40	42	44
Iowa	36	38	39	39	39	39	39	36	36	37
Kansas	27	29	31	31	30	30	30	32	33	32
Kentucky	26	26	27	29	28	28	28	27	27	29
Louisiana	16	16	17	20	22	22	22	22	21	21
Maine	9	9	10	12	12	10	14	15	15	14
Maryland	22	24	24	25	25	25	24	24	23	23
Massachusetts	51	48	48	48	48	47	46	48	44	41
Michigan	45	49	50	53	51	50	46	49	48	49
Minnesota	25	25	26	25	25	25	25	23	23	20
Mississippi	23	23	23	22	22	22	21	21	21	21
Missouri	37	38	38	39	39	41	41	42	40	44
Montana	4	4	4	4	4	4	6	4	4	5
Nebraska	11	11	11	11	11	14	13	13	10	13
Nevada	4	4	5	5	5	5	5	7	7	6
New Hampshire	7	8	11	10	11	11	10	10	10	9
New Jersey	40	38	38	39	39	39	38	38	38	38
New Mexico	11	11	11	11	11	12	13	13	14	14
New York	98	100	98	99	106	105	110	108	103	101
North Carolina	50	51	55	57	57	57	56	57	57	59
North Dakota	9	9	9	9	9	9	9	8	6	7
Ohio	72	71	71	72	71	70	69	70	67	68
Oklahoma	22	25	26	26	27	27	27	27	27	27
Oregon	16	16	16	19	18	17	17	17	18	18
Pennsylvania	95	96	95	97	98	98	98	94	92	90
Rhode Island	7	7	7	7	7	7	7	7	7	7
South Carolina	15	17	19	18	19	20	19	20	20	20
South Dakota	8	9	9	9	9	9	8	9	9	10
Tennessee	33	32	32	33	33	33	35	35	35	34
Texas	56	58	64	65	64	65	64	64	64	68
Utah	5	5	5	5	4	4	4	4	4	7
Vermont	4	4	5	5	5	5	5	5	5	5
Virginia	38	38	37	37	37	37	35	35	34	34
Washington	21	21	22	23	23	22	23	23	24	24
West Virginia	17	17	17	18	18	18	18	20	18	18
Wisconsin	29	31	31	32	33	33	32	30	29	29
Wyoming	3	3	4	5	5	5	5	6	6	7
American Samoa	0	1	1	1	1	1	1	1	1	1
Guam	1	1	1	1	1	1	1	1	1	1
Puerto Rico	16	18	19	19	19	20	20	20	22	22
Virgin Islands	1	1	2	2	2	2	2	2	2	2

¹ National and regional totals exclude American Samoa, Guam, Puerto Rico, and the Virgin Islands.

Table 4
BACCALAUREATE NURSING PROGRAMS, BY NLN REGION AND STATE: 1980 TO 1989¹

NLN REGION AND STATE	NUMBER OF PROGRAMS									
	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989
United States	377	383	402	421	427	441	455	467	479	488
North Atlantic	96	101	103	105	107	107	109	110	111	110
Midwest	110	111	117	121	124	131	139	144	151	157
South	128	129	137	147	147	151	154	158	162	165
West	43	42	45	48	49	52	53	55	55	56
Alabama	12	12	13	13	13	13	13	13	13	13
Alaska	1	1	1	1	1	1	1	1	1	1
Arizona	2	2	4	4	4	4	4	4	4	4
Arkansas	7	7	7	7	7	7	7	7	7	7
California	19	18	19	20	20	21	21	21	21	21
Colorado	3	3	3	3	3	5	6	6	6	6
Connecticut	7	7	7	7	7	7	7	7	7	7
Delaware	2	2	2	2	2	2	2	2	2	2
District of Columbia	5	5	5	5	5	5	5	5	4	4
Florida	10	10	12	13	12	12	13	13	13	13
Georgia	11	9	10	13	13	13	13	12	12	13
Hawaii	1	1	1	1	2	2	2	2	2	2
Idaho	1	1	1	1	1	1	1	2	2	2
Illinois	19	20	21	22	22	22	24	24	26	27
Indiana	10	9	10	11	13	13	13	17	20	21
Iowa	9	10	10	10	10	10	11	11	11	11
Kansas	9	9	9	9	9	10	10	11	11	10
Kentucky	5	5	6	7	7	8	9	9	9	10
Louisiana	7	7	8	10	12	12	12	12	12	12
Maine	2	2	2	3	3	3	3	5	6	6
Maryland	5	5	5	6	6	6	6	6	6	6
Massachusetts	13	13	14	14	14	14	14	15	14	14
Michigan	12	12	13	13	13	13	14	14	14	14
Minnesota	9	9	10	10	10	10	11	11	11	8
Mississippi	7	7	7	7	7	7	7	7	7	7
Missouri	8	8	9	9	9	11	11	11	11	14
Montana	2	2	2	2	2	2	2	2	2	2
Nebraska	4	4	4	4	4	7	7	7	7	7
Nevada	1	1	1	1	1	1	1	2	2	2
New Hampshire	2	3	3	3	3	3	3	3	3	3
New Jersey	7	7	7	7	7	7	7	7	7	7
New Mexico	1	1	1	1	1	1	1	1	1	1
New York	30	31	31	31	32	32	33	32	33	32
North Carolina	11	12	12	12	11	12	12	12	12	12
North Dakota	4	4	4	4	4	4	4	4	6	7
Ohio	14	14	14	15	15	15	17	18	18	21
Oklahoma	9	9	10	11	11	11	11	11	11	11
Oregon	2	2	2	4	4	4	4	4	4	5
Pennsylvania	24	27	28	29	30	30	30	30	31	31
Rhode Island	3	3	3	3	3	3	3	3	3	3
South Carolina	4	4	4	4	4	6	6	6	7	7
South Dakota	3	3	3	3	3	3	3	3	3	4
Tennessee	9	9	9	9	9	9	11	12	14	14
Texas	18	20	21	21	21	21	20	20	21	22
Utah	3	3	3	3	3	3	3	3	3	3
Vermont	1	1	1	1	1	1	1	1	1	1
Virginia	9	9	9	9	9	9	9	10	10	10
Washington	6	6	6	6	6	6	6	6	6	6
West Virginia	4	4	4	5	5	5	6	8	8	8
Wisconsin	9	9	10	11	12	13	14	13	13	13
Wyoming	1	1	1	1	1	1	1	1	1	1
American Samoa	0	0	0	0	0	0	0	0	0	0
Guam	0	0	0	0	0	0	0	0	1	1
Puerto Rico	8	10	11	11	11	12	12	12	13	13
Virgin Islands	0	0	1	1	1	1	1	1	1	1

¹ National and regional totals exclude American Samoa, Guam, Puerto Rico, and the Virgin Islands

Table 5
ASSOCIATE DEGREE NURSING PROGRAMS, BY NLN REGION AND STATE: 1980 TO 1989¹

NLN REGION AND STATE	NUMBER OF PROGRAMS									
	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989
United States	697	715	742	764	777	776	776	789	792	812
North Atlantic	121	119	124	129	136	137	144	147	146	148
Midwest	180	191	199	203	204	205	203	209	211	218
South	254	261	271	279	286	285	281	284	282	287
West	142	144	148	153	151	149	148	149	153	159
Alabama	18	19	20	20	20	20	20	20	20	20
Alaska	1	1	1	1	1	1	1	1	1	2
Arizona	14	14	14	13	12	12	11	11	11	11
Arkansas	11	11	11	11	11	11	11	12	12	12
California	64	66	67	71	71	69	68	67	68	69
Colorado	7	7	7	7	7	7	6	6	6	6
Connecticut	7	6	6	6	6	6	6	6	6	6
Delaware	3	3	3	3	3	3	3	3	3	4
District of Columbia	1	1	1	1	1	1	1	1	1	4
Florida	23	23	22	25	27	26	26	26	26	26
Georgia	20	20	19	19	19	19	19	19	19	19
Hawaii	4	4	4	4	4	4	4	4	4	5
Idaho	5	5	5	5	5	5	5	5	5	5
Illinois	33	33	34	34	34	34	34	34	35	35
Indiana	14	14	14	14	18	18	17	17	19	20
Iowa	18	19	20	20	20	20	20	20	20	21
Kansas	14	16	19	19	18	17	17	19	20	21
Kentucky	20	20	20	21	21	20	19	18	18	19
Louisiana	6	6	6	6	6	6	6	6	6	6
Maine	3	3	4	5	5	5	9	9	9	8
Maryland	13	14	14	14	14	14	14	14	14	14
Massachusetts	20	18	19	19	19	19	19	20	19	19
Michigan	25	29	30	33	32	32	32	32	31	32
Minnesota	12	12	12	12	12	12	12	12	12	12
Mississippi	14	14	14	14	14	14	14	14	14	14
Missouri	17	19	19	20	20	20	20	22	21	22
Montana	2	2	2	2	2	2	2	2	2	3
Nebraska	2	2	2	2	2	2	1	1	2	5
Nevada	3	3	4	4	4	4	4	5	5	4
New Hampshire	1	1	4	5	6	6	6	6	6	6
New Jersey	13	13	13	14	14	14	13	14	14	14
New Mexico	10	10	10	10	10	11	12	12	13	13
New York	46	48	47	48	54	55	59	60	59	60
North Carolina	32	32	36	38	40	40	39	41	41	43
North Dakota	2	2	2	2	2	2	2	2	0	0
Ohio	28	27	28	28	28	29	29	30	31	30
Oklahoma	12	15	15	15	16	16	16	16	16	16
Oregon	13	13	13	14	13	13	13	13	14	13
Pennsylvania	22	21	21	22	22	22	22	22	23	24
Rhode Island	2	2	2	2	2	2	2	2	2	2
South Carolina	10	12	14	13	14	13	12	13	13	13
South Dakota	3	4	4	4	4	4	4	5	5	5
Tennessee	17	16	16	17	17	17	17	17	17	16
Texas	32	33	38	40	40	42	42	42	41	44
Utah	2	2	2	2	1	1	1	1	1	4
Vermont	3	3	4	4	4	4	4	4	4	4
Virginia	15	15	15	15	15	16	16	16	16	16
Washington	15	15	16	17	17	16	17	17	18	18
West Virginia	11	11	11	11	11	11	10	10	9	9
Wisconsin	12	14	15	15	15	15	15	15	15	15
Wyoming	2	2	3	4	4	4	4	5	5	6
American Samoa	0	1	1	1	1	1	1	1	1	1
Guam	1	1	1	1	1	1	1	1	0	0
Puerto Rico	8	8	8	8	8	8	8	8	9	9
Virgin Islands	1	1	1	1	1	1	1	1	1	1

¹ National and regional totals exclude American Samoa, Guam, Puerto Rico, and the Virgin Islands.

Table 6
DIPLOMA NURSING PROGRAMS, BY NLN REGION AND STATE: 1980 TO 1989¹

NLN REGION AND STATE	NUMBER OF PROGRAMS									
	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989
United States	311	303	288	281	273	256	238	209	171	157
North Atlantic	127	122	114	114	114	106	106	98	86	77
Midwest	119	115	110	107	103	97	87	71	53	48
South	58	59	57	54	51	49	43	39	31	31
West	7	7	7	6	5	4	2	1	1	1
Alabama	4	4	4	4	4	3	3	2	2	2
Alaska	0	0	0	0	0	0	0	0	0	0
Arizona	0	0	0	0	0	0	0	0	0	0
Arkansas	1	2	2	2	2	2	2	2	2	2
California	4	4	4	3	2	2	1	1	1	1
Colorado	2	2	2	2	2	2	1	0	0	0
Connecticut	5	5	5	5	5	5	5	5	5	5
Delaware	2	2	2	2	2	1	1	1	1	1
District of Columbia	1	1	0	0	0	0	0	0	0	0
Florida	1	1	1	1	1	1	1	1	1	1
Georgia	4	4	3	2	2	2	2	2	1	1
Hawaii	0	0	0	0	0	0	0	0	0	0
Idaho	0	0	0	0	0	0	0	0	0	0
Illinois	28	25	24	24	22	20	19	14	11	8
Indiana	6	6	6	6	6	6	6	6	3	3
Iowa	9	9	9	9	9	9	8	5	5	5
Kansas	4	4	3	3	3	3	3	2	2	1
Kentucky	1	1	1	1	0	0	0	0	0	0
Louisiana	3	3	3	4	4	4	4	4	3	3
Maine	4	4	4	4	4	2	2	1	0	0
Maryland	4	5	5	5	5	5	4	4	3	3
Massachusetts	18	17	15	15	15	14	13	13	11	8
Michigan	8	8	7	7	6	5	4	3	3	3
Minnesota	4	4	4	3	3	3	2	0	0	0
Mississippi	2	2	2	1	1	1	0	0	0	0
Missouri	12	11	10	10	10	10	10	9	8	8
Montana	0	0	0	0	0	0	0	0	0	0
Nebraska	5	5	5	5	5	5	5	5	1	1
Nevada	0	0	0	0	0	0	0	0	0	0
New Hampshire	4	4	4	2	2	2	1	1	1	0
New Jersey	20	18	18	18	18	18	18	17	17	17
New Mexico	0	0	0	0	0	0	0	0	0	0
New York	22	21	20	20	20	18	18	16	11	9
North Carolina	7	7	7	7	6	5	5	4	4	4
North Dakota	3	3	3	3	3	3	3	2	0	0
Ohio	30	30	29	28	28	26	23	22	18	17
Oklahoma	1	1	1	0	0	0	0	0	0	0
Oregon	1	1	1	1	1	0	0	0	0	0
Pennsylvania	49	48	46	46	46	46	46	42	38	35
Rhode Island	2	2	2	2	2	2	2	2	2	2
South Carolina	1	1	1	1	1	1	1	1	0	0
South Dakota	2	2	2	2	2	2	1	1	1	1
Tennessee	7	7	7	7	7	7	7	6	4	4
Texas	6	5	5	4	3	2	2	2	2	2
Utah	0	0	0	0	0	0	0	0	0	0
Vermont	0	0	0	0	0	0	0	0	0	0
Virginia	14	14	13	13	13	12	10	9	8	8
Washington	0	0	0	0	0	0	0	0	0	0
West Virginia	2	2	2	2	2	2	2	2	1	1
Wisconsin	8	8	6	6	6	5	3	2	1	1
Wyoming	0	0	0	0	0	0	0	0	0	0
American Samoa	0	0	0	0	0	0	0	0	0	0
Guam	0	0	0	0	0	0	0	0	0	0
Puerto Rico	0	0	0	0	0	0	0	0	0	0
Virgin Islands	0	0	0	0	0	0	0	0	0	0

¹ National and regional totals exclude American Samoa, Guam, Puerto Rico, and the Virgin Islands.

Table 7
BACCALAUREATE NURSING PROGRAMS
THAT ENROLL BASIC AND/OR RN STUDENTS,
BY NLN ACCREDITATION STATUS: JANUARY 1989*

NLN ACCREDITATION STATUS	TOTAL NUMBER OF PROGRAMS	TYPE OF STUDENT ENROLLED	
		Both Basic and RN Students	RN Students Only
Total	630	488	142
Accredited	543	437	106
Non-Accredited	85	49	36

* Excludes American Samoa, Guam, Puerto Rico, and the Virgin Islands.

Table 8
FALL ADMISSIONS TO PUBLIC AND PRIVATE BASIC RN PROGRAMS, BY TYPE OF PROGRAM: 1980 TO 1989¹

PUBLIC AND PRIVATE NURSING PROGRAMS	NUMBER OF FALL ADMISSIONS									
	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989
All Programs	90,377	91,722	94,680	94,539	91,085	83,026	70,581	68,745	74,921	79,570
Public	59,454	59,477	62,930	62,609	61,880	57,018	50,417	51,362	56,922	60,032
Private	30,923	32,245	31,750	31,930	29,205	26,008	20,164	17,383	17,999	19,538
Baccalaureate	29,916	28,094	28,982	29,256	28,973	28,883	23,765	19,985	20,749	21,544
Public	18,096	16,541	17,819	17,098	17,315	16,239	13,356	12,806	13,122	13,574
Private	11,820	11,553	11,163	12,158	11,658	12,644	10,409	7,179	7,627	7,970
Associate Degree	44,384	46,855	48,626	49,848	48,855	44,966	40,166	41,695	46,910	49,930
Public	39,704	41,258	43,183	43,533	42,754	39,617	36,070	37,389	42,357	44,840
Private	4,680	5,597	5,443	6,315	5,601	5,349	4,096	4,306	4,553	5,090
Diploma	16,077	16,773	17,072	15,435	13,757	9,177	6,650	7,065	7,262	8,096
Public	1,654	1,678	1,928	1,978	1,811	1,162	991	1,167	1,443	1,618
Private	14,423	15,095	15,144	13,457	11,946	8,015	5,659	5,898	5,819	6,478

¹ Excludes American Samoa, Guam, Puerto Rico, and the Virgin Islands.

Table 9
ANNUAL ADMISSIONS TO BASIC RN PROGRAMS AND PERCENTAGE OF CHANGE
FROM PREVIOUS YEAR, BY TYPE OF PROGRAM: 1969-70 TO 1988-89¹

ACADEMIC YEAR	ALL BASIC RN PROGRAMS		BACCALAUREATE PROGRAMS		ASSOCIATE DEGREE PROGRAMS		DIPLOMA PROGRAMS	
	Number of Admissions	Percent Change	Number of Admissions	Percent Change	Number of Admissions	Percent Change	Number of Admissions	Percent Change
1969-70	74,598	+ 17.6	18,942	+ 19.1	25,142	+ 35.6	30,514	+ 5.3
1970-71	78,524	+ 5.3	20,299	+ 7.2	29,433	+ 17.1	28,792	- 5.6
1971-72	93,344	+ 18.9	27,228	+ 34.1	36,454	+ 23.8	29,662	+ 3.0
1972-73	103,789	+ 11.2	30,348	+ 11.5	43,733	+ 20.0	29,708	+ 0.1
1973-74	107,344	+ 3.4	32,461	+ 7.0	47,940	+ 9.6	26,943	- 9.3
1974-75	109,020	+ 1.6	34,956	+ 7.7	49,368	+ 3.0	24,696	- 8.3
1975-76	112,174	+ 2.9	36,320	+ 3.9	52,232	+ 5.8	23,622	- 4.3
1976-77	112,523	+ 0.3	36,670	+ 1.0	53,610	+ 2.6	22,243	- 5.8
1977-78	110,950	- 1.4	37,348	+ 1.8	52,991	- 1.1	20,611	- 7.3
1978-79	107,476	- 3.2	35,611	- 4.7	53,366	+ 0.7	18,499	- 10.2
1979-80	105,952	- 1.4	35,414	- 0.5	53,633	+ 0.5	16,905	- 8.6
1980-81	110,201	+ 4.0	35,808	+ 1.1	56,899	+ 6.1	17,494	+ 3.5
1981-82	115,279	+ 4.6	35,928	+ 0.3	60,423	+ 6.1	18,928	+ 8.1
1982-83	120,579	+ 4.6	37,264	+ 3.7	63,947	+ 5.8	19,368	+ 2.3
1983-84	123,824	+ 2.7	39,400	+ 5.7	66,576	+ 4.1	17,848	- 7.8
1984-85	118,224	- 4.5	39,573	+ 0.4	63,776	- 4.2	14,875	- 16.7
1985-86	100,791	- 14.7	34,310	- 13.3	56,635	- 11.2	9,846	- 33.0
1986-87	90,693	- 10.0	28,026	- 18.3	54,330	- 4.1	8,337	- 15.3
1987-88	94,269	+ 3.9	28,505	+ 1.7	57,375	+ 5.6	8,389	+ 0.6
1988-89	103,025	+ 9.3	29,042	+ 1.9	63,973	+ 11.5	10,010	+ 19.3

¹ Excludes American Samoa, Guam, Puerto Rico, and the Virgin Islands.

Table 10
ANNUAL ADMISSIONS TO PUBLIC AND PRIVATE BASIC RN PROGRAMS, BY TYPE OF PROGRAM: 1979-80 TO 1988-89¹

PUBLIC AND PRIVATE NURSING PROGRAMS	NUMBER OF ANNUAL ADMISSIONS									
	1979-80	1980-81	1981-82	1982-83	1983-84	1984-85	1985-86	1986-87	1987-88	1988-89
All Programs	105,952	110,201	115,279	120,579	123,824	118,224	100,791	90,693	94,269	103,025
Public	71,196	74,238	78,305	81,518	85,474	81,198	71,921	67,890	71,866	77,892
Private	34,756	35,923	36,974	39,061	38,350	37,026	28,870	22,803	22,403	25,133
Baccalaureate	35,414	35,808	35,928	37,264	39,400	39,573	34,310	28,026	28,505	29,042
Public	21,454	21,963	22,502	23,226	23,803	23,871	19,747	16,057	16,622	18,824
Private	13,960	13,845	13,426	14,038	15,597	15,702	14,563	9,969	9,883	10,218
Associate Degree	53,633	56,899	60,423	63,947	66,576	63,776	56,635	54,330	57,375	63,973
Public	47,593	50,260	53,280	55,473	59,209	55,150	50,549	48,249	51,566	56,958
Private	6,040	6,639	7,143	8,474	7,367	8,626	6,086	6,081	5,809	7,015
Diploma	16,905	17,494	18,928	19,368	17,848	14,875	9,846	8,337	8,389	10,010
Public	2,149	2,015	2,523	2,819	2,462	2,177	1,625	1,584	1,678	2,110
Private	14,756	15,479	16,405	16,549	15,386	12,698	8,221	6,753	6,711	7,900

¹ Excludes American Samoa, Guam, Puerto Rico, and the Virgin Islands.

Table 11
ANNUAL ADMISSIONS TO ALL BASIC RN PROGRAMS, BY NLN REGION AND STATE: 1979-80 TO 1988-89¹

NLN REGION AND STATE	NUMBER OF ADMISSIONS									
	1979-80	1980-81	1981-82	1982-83	1983-84	1984-85	1985-86	1986-87	1987-88	1988-89
United States	105,941	110,201	115,279	120,579	123,824	118,224	100,791	90,693	94,269	101,525
North Atlantic	29,149	29,185	29,530	31,537	31,964	31,738	27,818	23,069	23,792	23,792
Midwest	30,428	32,133	35,083	35,083	35,630	33,478	27,305	25,151	24,647	24,647
South	32,722	33,866	35,463	38,760	39,576	38,089	31,702	29,632	32,380	36,100
West	13,653	15,017	15,203	15,199	16,654	14,919	13,966	12,841	13,450	14,204
Alabama	2,393	2,744	2,754	3,297	3,139	3,074	2,158	2,149	2,003	2,346
Alaska	178	152	152	169	135	188	171	166	166	266
Arizona	1,185	1,266	1,159	1,401	1,518	1,213	1,024	962	970	996
Arkansas	1,143	1,291	1,425	1,375	1,312	1,143	937	983	1,327	1,415
California	6,626	7,596	7,363	7,263	7,921	7,568	7,013	6,098	6,320	6,507
Colorado	775	929	864	1,208	996	854	787	942	873	1,092
Connecticut	1,361	1,372	1,336	1,359	1,462	1,372	1,266	1,012	1,200	1,200
Delaware	479	508	523	597	541	416	413	339	370	386
District of Columbia	700	727	840	563	519	628	627	334	449	315
Florida	3,422	3,818	4,178	4,269	4,232	4,269	3,508	3,426	3,651	3,849
Georgia	1,935	1,991	2,206	2,358	2,448	2,953	2,060	1,805	2,075	2,289
Hawaii	243	244	219	288	240	262	372	183	345	272
Idaho	335	347	432	368	342	298	303	274	391	332
Illinois	5,705	5,882	6,355	6,393	6,710	5,881	5,255	4,422	3,840	4,642
Indiana	2,596	2,872	2,643	3,180	3,312	3,055	2,551	2,480	2,496	2,581
Iowa	2,087	2,054	2,290	2,454	2,281	2,206	1,625	1,661	1,668	1,672
Kansas	1,263	1,295	1,383	1,434	1,716	1,571	1,131	957	1,165	1,244
Kentucky	1,856	1,820	1,854	1,970	2,195	2,180	2,236	1,683	1,879	2,093
Louisiana	1,732	1,573	1,838	1,929	2,096	2,062	1,768	1,432	1,558	1,741
Maine	578	607	555	625	663	650	490	433	421	514
Maryland	1,781	1,960	2,022	2,266	2,243	2,313	1,788	1,483	1,449	1,542
Massachusetts	3,429	3,527	3,690	4,057	3,627	3,558	3,065	2,700	2,545	2,536
Michigan	3,959	4,137	4,255	4,214	4,525	4,820	3,893	3,872	3,521	3,582
Minnesota	2,205	2,326	2,343	2,340	2,222	1,779	1,343	1,431	1,570	1,788
Mississippi	1,453	1,518	1,610	1,794	1,905	1,825	1,524	1,503	1,440	1,584
Missouri	2,460	2,499	2,711	2,668	2,797	2,430	2,081	2,087	1,962	2,196
Montana	337	366	420	459	426	312	305	284	322	347
Nebraska	923	1,050	1,114	1,029	870	1,366	567	749	663	845
Nevada	211	242	263	249	281	251	204	199	268	215
New Hampshire	436	440	441	506	586	523	412	372	422	360
New Jersey	3,317	3,192	3,266	3,653	4,536	4,016	3,275	2,521	2,890	3,198
New Mexico	468	533	669	601	614	552	421	455	731	713
New York	11,674	11,251	11,044	11,899	12,438	12,601	11,845	9,401	9,122	10,638
North Carolina	3,004	2,965	2,962	3,179	3,471	3,007	2,796	2,920	2,881	3,526
North Dakota	519	650	678	603	548	609	327	225	191	301
Ohio	5,476	5,883	6,763	6,630	7,047	6,302	5,203	4,767	4,960	5,386
Oklahoma	1,237	1,337	1,317	1,390	1,385	1,182	1,232	1,244	1,335	1,350
Oregon	1,003	1,047	953	981	1,191	1,031	924	953	875	963
Pennsylvania	6,171	6,570	6,731	7,156	7,224	6,739	5,742	5,335	5,758	6,100
Rhode Island	739	726	831	822	1,063	962	522	440	402	382
South Carolina	1,013	1,006	1,356	1,391	1,472	1,587	1,231	1,031	1,239	1,387
South Dakota	573	636	716	720	718	628	361	629	542	365
Tennessee	2,557	2,984	3,220	3,069	2,974	3,099	2,341	2,179	2,848	2,702
Texas	5,631	5,121	4,998	5,977	6,192	5,514	5,053	4,758	5,631	6,880
Utah	454	435	698	439	652	447	473	345	450	507
Vermont	265	265	273	336	305	273	211	182	213	247
Virginia	2,481	2,546	2,515	2,901	2,878	2,588	2,024	2,035	2,149	2,597
Washington	1,701	1,734	1,886	1,587	2,158	1,730	1,751	1,769	1,544	1,770
West Virginia	1,084	1,192	1,208	1,559	1,634	1,293	1,046	1,001	915	1,052
Wisconsin	2,662	2,849	3,832	3,399	2,884	2,831	2,968	1,871	2,069	2,278
Wyoming	137	126	125	205	180	195	168	211	195	224
American Samoa	0	0	18	18	0	0	34	11	11	11
Guam	11	20	28	41	39	19	29	29	0	25
Puerto Rico	1,387	1,809	1,553	1,880	1,748	2,134	3,263	3,048	1,945	1,729
Virgin Islands	18	27	18	15	31	26	28	36	19	12

¹ National and regional totals exclude American Samoa, Guam, Puerto Rico, and the Virgin Islands.

Table 12

ANNUAL ADMISSIONS TO BACCALAUREATE NURSING PROGRAMS, BY NLN REGION AND STATE: 1979-80 TO 1988-89¹

REGION AND STATE	NUMBER OF ADMISSIONS									
	1979-80	1980-81	1981-82	1982-83	1983-84	1984-85	1985-86	1986-87	1987-88	1988-89
United States	35,414	35,808	35,928	37,264	39,400	39,573	34,310	28,026	28,505	29,042
North Atlantic	10,670	10,244	10,050	10,273	10,347	10,987	9,491	6,545	6,449	6,525
Midwest	9,355	9,817	10,614	10,715	10,822	10,846	9,704	8,394	8,267	8,439
South	11,125	11,372	11,040	11,679	12,877	12,866	10,584	9,064	9,666	9,937
West	4,264	4,375	4,224	4,597	5,354	4,874	4,531	4,023	4,123	4,141
Alabama	1,140	1,356	1,348	1,318	1,437	1,367	861	976	834	853
Alaska	138	112	112	104	95	126	132	126	126	226
Arizona	506	504	423	695	719	455	314	279	270	287
Arkansas	396	458	451	430	292	313	258	289	310	321
California	1,665	1,754	1,621	1,756	2,111	2,142	2,083	1,746	1,720	1,595
Colorado	355	385	397	546	382	361	347	398	299	455
Connecticut	492	484	521	474	527	520	374	349	516	574
Delaware	223	250	268	295	262	209	171	117	117	122
District of Columbia	532	567	491	443	397	508	562	255	359	225
Florida	661	748	711	812	867	994	926	714	652	770
Georgia	382	466	624	589	753	925	725	503	561	769
Hawaii	90	78	65	144	73	115	147	119	170	59
Idaho	55	58	48	43	52	45	45	44	78	67
Illinois	1,419	1,470	1,732	1,703	1,775	1,603	1,694	1,354	1,162	1,242
Indiana	900	996	698	1,291	1,490	1,224	1,207	1,082	1,116	1,092
Iowa	558	528	635	579	569	596	451	394	377	354
Kansas	523	572	544	530	596	520	436	353	403	428
Kentucky	292	286	322	385	543	612	977	554	607	662
Louisiana	805	724	843	738	1,017	996	974	790	911	1,009
Maine	208	220	167	183	275	329	206	205	226	311
Maryland	503	537	500	627	640	772	612	466	388	306
Massachusetts	1,308	1,381	1,315	1,657	1,345	1,388	1,114	823	715	785
Michigan	1,236	1,309	1,176	1,161	1,287	1,301	1,100	1,177	1,069	1,080
Minnesota	754	685	624	677	639	549	503	437	445	418
Mississippi	476	469	520	562	631	638	407	362	322	348
Missouri	624	705	655	584	669	650	631	569	601	557
Montana	253	264	244	307	280	199	187	176	220	187
Nebraska	229	247	254	299	202	721	346	608	538	610
Nevada	50	48	61	58	67	61	42	43	71	75
New Hampshire	182	199	218	209	165	161	117	110	81	99
New Jersey	945	708	756	838	702	1,168	1,027	528	681	408
New Mexico	89	102	204	153	134	96	26	55	77	74
New York	4,080	3,586	3,441	3,392	3,434	3,627	3,669	2,339	1,957	2,115
North Carolina	1,090	1,028	814	788	968	779	587	837	553	587
North Dakota	213	340	327	328	227	331	179	162	191	301
Ohio	1,347	1,319	1,367	1,598	1,747	1,820	1,389	1,265	1,219	1,282
Oklahoma	487	555	462	521	560	428	455	372	407	414
Oregon	223	236	119	118	413	359	292	370	288	286
Pennsylvania	2,139	2,318	2,282	2,271	2,420	2,329	2,025	1,611	1,618	1,738
Rhode Island	456	430	492	405	719	646	203	152	104	92
South Carolina	352	354	448	338	592	778	469	282	355	342
South Dakota	274	276	299	280	329	255	143	140	181	125
Tennessee	787	1,064	1,112	881	801	1,081	629	576	1,000	729
Texas	2,554	2,253	1,891	2,310	2,261	2,029	1,698	1,517	1,728	1,732
Utah	104	99	203	68	254	201	212	170	231	203
Vermont	95	101	99	106	101	102	73	56	75	56
Virginia	957	836	766	1,029	985	856	662	587	753	776
Washington	668	689	684	534	729	641	601	419	514	558
West Virginia	243	238	228	351	530	299	344	239	285	319
Wisconsin	1,278	1,370	2,303	1,685	1,292	1,276	1,625	853	965	950
Wyoming	68	46	43	71	45	73	53	78	59	49
American Samoa	0	0	0	0	0	0	0	0	—	—
Guam	0	0	0	0	0	0	0	0	0	25
Puerto Rico	621	967	825	1,069	1,067	1,587	2,466	2,335	1,301	996
Virgin Islands	0	0	0	1	6	10	10	18	9	7

¹ National and regional totals exclude American Samoa, Guam, Puerto Rico, and the Virgin Islands.

Table 13
ANNUAL ADMISSIONS TO ASSOCIATE DEGREE NURSING PROGRAMS,
BY NLN REGION AND STATE: 1979-80 TO 1988-89¹

NLN REGION AND STATE	NUMBER OF ANNUAL ADMISSIONS									
	1979-80	1980-81	1981-82	1982-83	1983-84	1984-85	1985-86	1986-87	1987-88	1988-89
United States	53,633	56,899	60,423	63,947	66,576	63,776	56,635	54,330	57,375	63,973
North Atlantic	12,559	12,736	12,965	14,128	14,875	14,889	14,089	12,800	13,592	14,792
Midwest	13,913	14,904	16,276	16,397	17,455	16,807	14,012	13,974	13,927	15,652
South	18,374	19,240	20,816	23,321	23,330	22,307	19,285	18,894	20,695	23,753
West	8,787	10,019	10,366	10,101	10,916	9,773	9,249	8,662	9,161	9,776
Alabama	1,085	1,227	1,230	1,793	1,535	1,584	1,265	1,139	1,136	1,457
Alaska	40	40	40	65	40	62	39	40	40	40
Arizona	679	762	736	706	799	776	710	683	700	709
Arkansas	644	677	792	759	811	661	576	543	705	767
California	4,552	5,411	5,313	5,229	5,535	5,196	4,744	4,196	4,434	4,625
Colorado	347	464	407	581	505	451	440	544	574	637
Connecticut	532	534	503	550	588	535	712	442	457	356
Delaware	173	174	175	203	216	187	224	205	236	245
District of Columbia	125	160	349	120	122	120	65	79	90	90
Florida	2,594	3,000	3,335	3,276	3,205	3,144	2,513	2,636	2,920	2,980
Georgia	1,301	1,359	1,384	1,568	1,493	1,890	1,233	1,215	1,420	1,432
Hawaii	153	166	154	144	167	147	225	64	175	213
Idaho	280	289	384	325	290	253	258	230	313	245
Illinois	2,927	3,085	3,149	3,285	3,586	3,142	2,847	2,723	2,418	3,024
Indiana	1,321	1,444	1,519	1,456	1,370	1,365	1,041	1,076	1,263	1,389
Iowa	1,032	1,025	1,053	1,248	1,125	1,246	968	1,006	1,124	1,111
Kansas	551	605	706	709	909	885	608	580	733	792
Kentucky	1,446	1,426	1,472	1,585	1,652	1,568	1,259	1,129	1,272	1,431
Louisiana	635	528	665	795	742	713	457	438	412	509
Maine	218	231	273	286	290	238	260	228	195	203
Maryland	1,091	1,183	1,244	1,346	1,306	1,226	1,077	899	927	1,079
Massachusetts	1,246	1,267	1,406	1,474	1,472	1,570	1,517	1,479	1,482	1,361
Michigan	2,195	2,253	2,541	2,537	2,919	3,155	2,489	2,451	2,298	2,348
Minnesota	1,188	1,339	1,455	1,412	1,364	1,133	840	994	1,125	1,370
Mississippi	918	989	1,054	1,202	1,235	1,187	1,117	1,141	1,118	1,236
Missouri	901	887	1,040	1,037	1,123	1,022	938	1,032	860	1,025
Montana	84	102	176	152	146	113	118	108	102	160
Nebraska	297	310	324	304	237	265	70	83	71	184
Nevada	161	194	202	191	214	190	162	156	197	140
New Hampshire	109	108	159	218	343	316	251	248	341	261
New Jersey	1,527	1,572	1,498	1,656	1,534	1,538	1,267	1,156	1,340	1,415
New Mexico	379	431	465	448	480	456	395	400	654	639
New York	6,490	6,506	6,365	7,242	7,395	8,036	7,521	6,592	6,743	8,013
North Carolina	1,629	1,676	1,826	2,082	2,171	1,960	2,042	1,969	2,150	2,414
North Dakota	137	144	134	133	155	156	89	63	—	—
Ohio	2,279	2,589	2,961	2,704	3,165	2,908	2,689	2,608	2,705	2,968
Oklahoma	727	751	824	869	825	754	777	872	928	936
Oregon	660	699	710	721	778	672	632	583	587	677
Pennsylvania	1,755	1,799	1,811	1,935	1,974	1,938	1,884	1,998	2,309	2,398
Rhode Island	214	221	252	250	237	240	250	247	261	259
South Carolina	641	624	865	1,021	844	803	749	740	884	1,045
South Dakota	194	226	271	296	277	289	186	385	305	217
Tennessee	1,246	1,304	1,422	1,336	1,451	1,266	1,261	1,301	1,432	1,462
Texas	2,709	2,508	2,690	3,363	3,777	3,341	3,245	3,111	3,764	4,948
Utah	350	336	495	371	398	246	267	175	219	304
Vermont	170	164	174	230	204	171	138	126	138	191
Virginia	1,007	1,177	1,194	1,237	1,316	1,325	1,073	1,150	1,077	1,406
Washington	1,033	1,045	1,202	1,053	1,429	1,089	1,150	1,350	1,030	1,212
West Virginia	701	811	819	1,053	967	885	641	611	550	651
Wisconsin	891	997	1,123	1,257	1,225	1,241	1,247	973	1,025	1,224
Wyoming	69	80	82	134	135	122	115	133	136	175
American Samoa	0	0	18	18	0	0	34	11	11	11
Guam	11	20	28	41	39	29	29	—	—	—
Puerto Rico	766	842	728	811	681	547	797	713	644	733
Virgin Islands	18	27	18	14	25	216	18	18	10	5

¹National and regional totals exclude American Samoa, Guam, Puerto Rico, and the Virgin Islands

Table 14
ANNUAL ADMISSIONS TO DIPLOMA NURSING PROGRAMS, BY NLN REGION AND STATE: 1979-80 TO 1988-89¹

REGION AND STATE	NUMBER OF ANNUAL ADMISSIONS									
	1979-80	1980-81	1981-82	1982-83	1983-84	1984-85	1985-86	1986-87	1987-88	1988-89
United States	16,905	17,494	18,928	19,368	7,848	14,875	9,846	9,337	9,389	10,010
North Atlantic	5,920	6,205	6,515	7,136	6,742	5,862	4,238	3,724	3,751	4,559
Midwest	7,160	7,412	8,193	7,971	7,353	5,825	3,589	2,783	2,453	2,771
South	3,223	3,254	3,607	3,760	3,369	2,916	1,833	1,674	2,019	2,393
West	602	623	613	501	384	272	186	156	166	287
Alabama	168	161	176	186	167	123	32	34	33	36
Alaska	0	0	0	0	0	0	0	0	—	—
Arizona	0	0	0	0	0	0	0	0	—	—
Arkansas	103	156	182	186	209	169	103	151	312	327
California	409	431	429	278	275	230	186	156	166	287
Colorado	73	80	60	81	109	42	0	0	—	—
Connecticut	337	354	312	335	347	317	180	221	227	270
Delaware	83	84	80	99	63	20	18	17	17	19
District of Columbia	43	0	0	0	0	0	0	0	—	—
Florida	167	70	132	181	160	131	89	76	79	99
Georgia	252	166	198	201	202	138	102	87	94	88
Hawaii	0	0	0	0	0	0	0	0	—	—
Idaho	0	0	0	0	0	0	0	0	—	—
Illinois	1,359	1,327	1,474	1,405	1,349	1,136	714	345	260	358
Indiana	375	432	426	433	452	466	303	322	117	100
Iowa	497	501	602	627	587	364	206	261	167	207
Kansas	189	118	133	195	211	166	87	24	29	24
Kentucky	118	108	60	0	0	0	0	0	—	—
Louisiana	292	321	330	396	337	353	337	204	235	223
Maine	152	156	115	156	98	83	24	0	—	—
Maryland	187	240	278	293	297	315	99	118	134	157
Massachusetts	875	879	969	926	810	600	434	396	348	390
Michigan	528	575	538	516	319	364	304	244	154	154
Minnesota	263	302	264	251	219	97	0	0	—	—
Mississippi	59	60	36	30	39	0	0	0	—	—
Missouri	935	907	1,016	1,047	1,005	758	512	486	501	614
Montana	0	0	0	0	0	0	0	0	—	—
Nebraska	397	493	536	426	431	380	151	58	54	51
Nevada	0	0	0	0	0	0	0	0	—	—
New Hampshire	145	133	64	79	78	46	44	14	0	—
New Jersey	845	912	1,012	1,159	1,300	1,310	981	837	869	1,375
New Mexico	0	0	0	0	0	0	0	0	—	—
New York	1,094	1,159	1,238	1,265	1,109	938	655	470	422	510
North Carolina	285	261	322	309	332	268	167	114	178	255
North Dakota	169	166	217	142	166	122	59	0	—	—
Ohio	1,850	1,975	2,435	2,328	2,135	1,574	1,125	894	1,036	1,136
Oklahoma	23	31	31	0	0	0	0	0	—	—
Oregon	120	112	124	142	0	0	0	0	—	—
Pennsylvania	2,277	2,453	2,638	2,950	2,830	2,472	1,833	1,726	1,831	1,964
Rhode Island	69	75	87	167	107	76	69	41	37	31
South Carolina	20	28	43	32	36	6	13	9	—	—
South Dakota	105	134	146	144	112	84	32	104	56	23
Tennessee	524	616	686	652	722	753	451	302	416	511
Texas	368	360	417	304	154	144	110	130	139	200
Utah	0	0	0	0	0	0	0	0	—	—
Vermont	0	0	0	0	0	0	0	0	—	—
Virginia	517	533	555	635	577	407	289	298	319	415
Washington	0	0	0	0	0	0	0	0	—	—
West Virginia	140	143	161	155	137	109	61	151	80	82
Wisconsin	493	482	406	457	367	314	96	45	79	104
Wyoming	0	0	0	0	0	0	0	0	—	—
American Samoa	0	0	0	0	0	0	0	0	—	—
Guam	0	0	0	0	0	0	0	0	—	—
Puerto Rico	0	0	0	0	0	0	0	0	—	—
Virgin Islands	0	0	0	0	0	0	0	0	—	—

¹ National and regional totals exclude American Samoa, Guam, Puerto Rico, and the Virgin Islands.

Table 15
ENROLLMENTS IN BASIC RN PROGRAMS AND PERCENTAGE CHANGE
FROM PREVIOUS YEAR, BY TYPE OF PROGRAM: 1970 TO 1989¹

YEAR	ALL BASIC RN PROGRAMS		BACCALAUREATE PROGRAMS		ASSOCIATE DEGREE PROGRAMS		DIPLOMA PROGRAMS	
	Number of Enrollments	Percent Change	Number of Enrollments	Percent Change	Number of Enrollments	Percent Change	Number of Enrollments	Percent Change
1970	162,924	+9.2	48,657	+12.4	43,855	+29.3	70,412	-2.1
1971	185,869	+14.1	59,454	+22.2	55,425	+26.4	70,990	+0.8
1972	211,239	+13.6	73,499	+23.6	66,402	+19.8	71,338	+0.5
1973	230,803	+9.3	84,738	+15.3	77,508	+16.7	68,557	-3.9
1974	242,551	+5.1	94,413	+11.4	84,166	+8.6	63,972	-6.7
1975	248,171	+2.3	99,837	+5.7	88,121	+4.7	60,213	-5.9
1976	247,044	-0.4	99,949	+0.1	91,004	+3.3	56,091	-6.8
1977	245,390	-0.7	101,430	+1.5	91,102	+0.1	52,858	-5.8
1978	239,486	-2.4	99,900	-1.5	91,527	+0.5	48,059	-9.1
1979	234,659	-2.0	98,939	-1.0	92,069	+0.6	43,651	-9.2
1980	230,966	-1.6	95,858	-3.1	94,060	+2.2	41,048	-6.0
1981	234,995	+1.7	93,967	-2.0	100,019	+6.3	41,009	-0.1
1982	242,035	+3.0	94,363	+0.4	105,324	+5.3	42,348	+3.3
1983	250,553	+3.5	98,941	+4.9	109,605	+4.1	42,007	-0.8
1984	237,232	-5.3	95,008	-4.0	104,968	-4.2	37,256	-11.3
1985	217,955	-8.1	91,020	-4.2	96,756	-7.8	30,179	-19.0
1986	193,712	-11.1	81,602	-10.3	89,469	-7.5	22,641	-25.0
1987	182,947	-5.6	73,621	-9.8	90,399	+1.0	18,927	-16.4
1988	184,924	+1.1	70,078	-4.8	95,986	+6.2	18,860	-0.4
1989	201,458	+8.9	74,865	+6.8	106,175	+10.6	20,418	-8.3

¹Excludes American Samoa, Guam, Puerto Rico, and the Virgin Islands.

Table 16
ENROLLMENTS IN PUBLIC AND PRIVATE BASIC RN PROGRAMS, BY TYPE OF PROGRAM: 1980 TO 1989¹

PUBLIC AND PRIVATE NURSING PROGRAMS	TOTAL ENROLLMENTS									
	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989
All Programs	230,966	234,995	242,035	250,553	237,232	217,955	193,715	182,947	184,924	201,458
Public	142,857	146,260	153,095	158,005	153,057	141,399	129,362	130,230	134,575	148,343
Private	88,109	88,735	88,940	92,548	84,175	76,556	64,350	52,717	50,349	53,115
Baccalaureate	95,858	93,967	94,363	98,941	95,008	91,020	81,602	73,621	70,078	74,865
Public	55,631	54,664	55,514	57,952	55,390	53,450	47,329	47,276	45,414	49,792
Private	40,227	39,303	38,849	40,989	39,618	37,570	34,273	26,345	24,664	25,073
Associate Degree	94,060	100,019	105,324	109,605	104,968	96,756	89,469	90,399	95,986	106,175
Public	82,314	86,887	92,042	93,997	92,245	83,693	76,207	79,542	85,413	94,501
Private	11,746	13,132	13,282	15,608	12,723	13,063	11,262	10,857	10,573	11,674
Diploma	41,048	41,009	42,348	42,007	37,256	30,179	22,641	18,927	18,860	20,418
Public	4,912	4,709	5,539	6,056	5,422	4,256	3,826	3,412	3,748	4,050
Private	36,136	36,300	36,809	35,951	31,834	25,923	18,815	15,515	15,112	16,368

¹Excludes American Samoa, Guam, Puerto Rico, and the Virgin Islands.

Table 17
TOTAL ENROLLMENTS IN ALL BASIC RN PROGRAMS, BY NLN REGION AND STATE: 1980 TO 1989¹

NLN REGION AND STATE	NUMBER OF TOTAL ENROLLMENTS									
	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989
United States	230,966	234,995	242,035	250,553	237,232	217,955	193,712	182,947	184,924	201,458
North Atlantic	70,465	69,404	69,082	72,276	68,798	63,673	56,345	50,521	49,533	53,315
Midwest	67,715	69,842	72,835	74,347	69,521	63,247	54,591	50,450	49,957	53,665
South	64,896	66,082	70,947	74,145	69,343	63,911	58,316	57,674	60,912	68,882
West	27,890	29,667	29,171	29,765	29,570	27,124	24,460	24,302	24,522	25,596
Alabama	5,220	5,453	5,536	6,796	5,727	5,050	4,300	3,799	4,003	4,462
Alaska	332	344	322	348	377	377	455	268	269	274
Arizona	2,042	2,199	2,185	2,535	2,389	1,933	1,816	1,827	1,819	1,765
Arkansas	2,163	2,374	2,434	2,628	2,090	2,028	1,936	1,929	2,170	2,627
California	13,652	14,724	14,287	14,028	16,442	13,705	11,992	12,108	11,668	12,003
Colorado	2,003	1,857	1,859	1,884	1,533	1,546	1,446	1,393	1,336	1,592
Connecticut	3,446	3,324	3,233	3,442	3,232	2,995	2,551	2,267	2,268	2,371
Delaware	1,320	1,334	1,261	1,370	1,279	1,073	957	829	800	879
District of Columbia	2,032	1,640	1,404	1,929	1,354	1,251	1,055	754	799	704
Florida	6,147	6,769	7,196	7,127	6,796	6,398	5,545	5,475	5,877	6,371
Georgia	3,797	3,848	4,087	4,200	4,016	3,694	3,278	3,185	3,532	3,942
Hawaii	403	402	392	481	508	311	464	520	825	659
Idaho	623	676	674	663	604	467	470	550	625	710
Illinois	12,392	12,479	12,889	13,171	12,197	10,641	9,246	8,087	8,114	8,532
Indiana	6,364	6,329	6,807	6,948	6,690	6,280	6,260	5,830	6,007	6,219
Iowa	4,286	4,350	4,565	4,585	4,342	3,736	2,966	2,917	2,817	3,126
Kansas	2,314	2,583	2,685	2,834	2,722	2,255	1,775	1,791	1,951	2,272
Kentucky	3,227	3,262	3,395	3,932	3,801	3,724	3,521	3,550	3,801	4,250
Louisiana	4,165	4,070	4,401	3,927	4,656	4,779	5,081	4,957	5,462	7,163
Maine	1,318	1,162	1,159	1,192	1,137	1,017	910	1,001	984	1,153
Maryland	3,521	3,817	4,069	4,353	4,007	3,591	3,097	2,775	2,629	2,838
Massachusetts	9,056	8,928	9,050	9,595	9,277	8,190	7,119	6,239	5,593	6,232
Michigan	8,554	8,851	9,100	9,041	8,601	8,472	7,540	7,553	6,928	7,219
Minnesota	4,462	4,619	4,514	4,465	3,862	3,029	2,659	2,548	2,480	2,774
Mississippi	2,601	2,782	3,070	3,304	3,341	2,812	2,669	2,584	2,720	2,980
Missouri	5,470	5,630	5,694	5,832	5,357	4,799	4,218	3,875	3,702	3,943
Montana	867	873	1,034	1,155	1,060	947	887	739	868	896
Nebraska	2,079	2,269	2,303	2,281	1,932	2,413	1,266	1,169	1,196	1,603
Nevada	419	586	611	711	657	582	477	488	439	452
New Hampshire	1,030	1,034	1,098	1,180	1,211	1,076	819	803	805	905
New Jersey	7,300	7,221	7,055	7,413	7,041	6,792	5,942	5,410	5,642	5,959
New Mexico	970	1,042	1,054	1,089	1,052	971	757	920	987	1,072
New York	26,361	26,057	25,566	25,997	24,550	23,605	21,380	19,266	18,105	19,414
North Carolina	5,660	5,555	5,893	6,235	5,727	4,919	4,600	4,679	5,086	5,852
North Dakota	1,307	1,312	1,323	1,409	1,165	1,137	865	650	551	738
Ohio	12,407	13,111	14,200	14,644	13,866	12,722	11,156	10,651	10,748	11,464
Oklahoma	2,319	2,296	2,481	2,471	2,377	2,065	1,977	2,324	2,243	2,562
Oregon	1,880	2,011	2,007	2,198	2,032	2,075	1,676	1,620	1,595	1,747
Pennsylvania	15,898	15,884	16,456	17,685	16,801	15,759	13,832	12,325	13,106	14,159
Rhode Island	2,091	2,204	2,181	1,883	2,282	1,372	1,348	1,213	1,017	1,086
South Carolina	2,216	2,372	2,592	3,233	2,750	2,764	2,536	2,424	2,664	2,931
South Dakota	1,468	1,568	1,568	1,570	1,489	1,205	1,067	1,104	1,057	1,125
Tennessee	5,754	5,946	6,368	6,625	6,269	5,523	4,856	4,797	4,726	4,981
Texas	10,527	9,783	11,166	11,007	10,166	9,744	8,950	9,313	10,082	11,394
Utah	860	981	952	939	723	845	910	794	779	1,003
Vermont	613	616	619	664	634	543	432	414	414	453
Virginia	5,292	5,346	5,671	5,525	5,003	4,578	3,983	4,045	4,139	4,577
Washington	3,552	3,675	3,445	3,357	3,407	3,027	2,836	2,633	2,828	2,945
West Virginia	2,287	2,409	2,588	2,708	2,557	2,242	1,987	1,838	1,778	1,952
Wisconsin	6,612	6,741	7,187	7,564	7,298	6,558	5,573	4,275	4,406	4,650
Wyoming	287	297	349	400	386	338	337	442	484	478
American Samoa	0	10	18	24	26	11	14	16	16	16
Guam	41	49	53	82	54	60	60	60	—	19
Puerto Rico	3,819	3,393	3,375	4,020	3,563	3,144	3,642	3,561	2,918	2,980
Virgin Islands	38	26	28	44	57	55	56	73	50	47

¹ National and regional totals exclude American Samoa, Guam, Puerto Rico, and the Virgin Islands.

Table 18
TOTAL ENROLLMENTS IN BASIC BACCALAUREATE NURSING PROGRAMS,
BY NLN REGION AND STATE: 1980 TO 1989¹

NLN REGION AND STATE	NUMBER OF TOTAL ENROLLMENTS ²									
	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989
United States	95,858	93,967	94,363	98,941	95,008	91,020	81,602	73,621	70,078	74,065
North Atlantic	31,808	30,915	30,016	30,788	29,066	26,914	23,065	19,710	17,695	17,742
Midwest	26,330	25,850	26,819	28,108	27,505	27,013	24,620	21,823	21,183	21,916
South	26,927	26,253	26,790	28,191	26,500	25,849	23,998	22,564	22,134	25,846
West	10,793	10,949	10,738	11,854	11,937	11,244	9,919	9,524	9,066	9,361
Alabama	2,984	3,087	3,016	3,641	2,856	2,763	2,276	1,991	1,904	2,040
Alaska	270	264	254	288	310	317	329	203	203	199
Arizona	900	951	923	1,150	1,212	822	765	591	595	546
Arkansas	856	893	818	875	567	626	594	580	549	672
California	4,570	4,636	4,440	4,789	5,115	5,139	4,258	4,309	3,947	3,990
Colorado	1,029	931	935	921	614	781	725	711	585	756
Connecticut	1,591	1,562	1,517	1,607	1,526	1,481	1,281	1,076	1,012	988
Delaware	879	852	817	886	813	738	625	467	411	419
District of Columbia	1,575	1,353	1,078	1,570	1,151	1,045	843	675	647	552
Florida	1,625	1,538	1,528	1,760	1,619	1,757	1,540	1,430	1,418	1,494
Georgia	1,084	1,203	1,208	1,244	1,276	1,197	1,025	901	988	1,215
Hawaii	145	114	128	244	220	58	228	401	354	284
Idaho	164	136	93	88	84	37	32	107	183	223
Illinois	4,241	4,033	4,169	4,518	4,514	4,096	3,826	3,249	3,059	3,028
Indiana	2,779	2,557	3,070	3,361	3,073	3,100	3,586	3,351	3,418	3,321
Iowa	1,444	1,333	1,288	1,301	1,320	1,235	1,057	821	779	788
Kansas	1,115	1,106	1,169	1,193	1,264	1,106	863	780	836	940
Kentucky	689	702	767	1,298	1,276	1,482	1,652	1,477	1,571	1,846
Louisiana	2,320	2,163	2,419	1,922	2,756	3,086	3,397	3,361	3,623	5,127
Maine	597	443	387	458	530	566	523	700	666	797
Maryland	1,077	1,228	1,229	1,329	1,215	1,187	1,166	968	758	819
Massachusetts	4,297	4,355	4,494	4,569	4,518	3,999	3,394	2,970	2,578	2,821
Michigan	3,484	3,499	3,313	3,439	3,576	3,663	3,283	3,157	3,096	2,867
Minnesota	1,697	1,691	1,628	1,635	1,515	1,275	1,138	1,046	844	895
Mississippi	966	1,017	1,068	1,164	1,315	1,005	1,179	998	958	995
Missouri	1,621	1,835	1,781	1,677	1,438	1,499	1,366	1,217	1,057	1,035
Montana	687	691	797	901	868	740	659	565	606	621
Nebraska	510	520	546	589	457	1,160	748	824	1,026	1,295
Nevada	87	246	249	349	265	236	181	193	231	281
New Hampshire	572	618	619	597	619	515	432	363	329	352
New Jersey	2,537	2,500	2,352	2,253	1,997	1,997	1,792	1,480	1,056	1,251
New Mexico	266	304	315	360	345	284	211	190	181	174
New York	11,008	10,362	9,820	9,555	8,723	8,313	6,826	5,793	4,981	4,603
North Carolina	2,452	2,224	2,212	2,266	2,101	1,831	1,623	1,563	1,348	1,409
North Dakota	740	737	747	764	601	693	606	537	551	738
Ohio	3,609	3,676	3,932	4,347	4,380	4,408	3,997	3,781	3,571	3,789
Oklahoma	1,015	953	993	1,056	1,086	877	740	933	780	947
Oregon	502	559	546	727	990	890	744	665	616	666
Pennsylvania	6,927	6,967	7,086	7,800	7,367	7,219	6,344	5,288	5,364	5,330
Rhode Island	1,520	1,588	1,521	1,205	1,500	750	754	682	470	461
South Carolina	1,118	1,102	1,140	1,319	1,420	1,411	1,195	994	997	1,049
South Dakota	837	854	847	851	794	688	624	594	555	632
Tennessee	2,259	2,286	2,157	2,404	2,174	1,960	1,785	1,667	1,629	1,662
Texas	5,546	4,990	5,352	4,938	4,310	4,262	3,792	3,747	3,676	4,238
Utah	301	273	278	292	395	450	407	395	378	415
Vermont	305	315	325	329	322	291	251	216	181	168
Virginia	2,292	2,228	2,243	2,200	1,822	1,736	1,488	1,339	1,327	1,611
Washington	1,711	1,683	1,582	1,535	1,427	1,312	1,179	977	962	971
West Virginia	644	639	640	733	707	649	546	615	608	722
Wisconsin	4,053	4,009	4,329	4,433	4,573	4,090	3,526	2,466	2,381	2,588
Wyoming	161	161	198	210	192	178	201	217	225	235
American Samoa	0	0	0	0	0	0	0	0	—	—
Guam	0	0	0	0	0	0	0	0	—	19
Puerto Rico	2,332	2,132	2,065	2,674	2,424	2,292	2,708	2,615	2,118	1,873
Virgin Islands	0	0	1	6	27	28	26	46	27	26

¹National and regional totals exclude American Samoa, Guam, Puerto Rico, and the Virgin Islands.
²Includes basic students only.

Table 19
TOTAL ENROLLMENTS IN ASSOCIATE DEGREE NURSING PROGRAMS, BY NLN REGION AND STATE: 1980 TO 1989¹

NLN REGION AND STATE	NUMBER OF TOTAL ENROLLMENTS									
	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989
United States	94,060	100,019	105,324	109,605	104,968	96,756	89,469	90,399	95,986	106,175
North Atlantic	23,670	23,942	24,105	26,117	25,459	24,468	23,213	22,296	23,044	25,932
Midwest	24,194	26,406	27,980	28,652	26,899	24,326	22,013	22,497	23,215	26,084
South	30,480	32,334	36,019	37,955	35,754	32,637	30,104	31,166	34,576	38,281
West	15,716	17,337	17,220	16,861	16,856	15,325	14,139	14,440	15,151	15,878
Alabama	1,831	1,938	2,102	2,730	2,488	2,065	1,900	1,742	2,039	2,363
Alaska	62	80	68	60	67	60	63	65	66	75
Arizona	1,142	1,248	1,262	1,385	1,177	1,111	1,051	1,236	1,224	1,219
Arkansas	1,065	1,180	1,253	1,316	1,164	1,067	1,012	927	997	1,225
California	8,208	9,181	9,129	8,635	9,218	8,091	7,344	7,461	7,416	7,656
Colorado	767	737	743	721	759	685	709	682	751	836
Connecticut	942	908	878	966	872	875	742	680	703	761
Delaware	294	322	285	281	349	285	285	320	343	417
District of Columbia	370	249	326	359	203	206	212	79	152	152
Florida	4,236	4,945	5,372	5,055	4,868	4,423	3,854	3,905	4,299	4,672
Georgia	2,160	2,183	2,454	2,531	2,313	2,124	1,971	2,045	2,323	2,584
Hawaii	258	288	264	237	288	253	236	119	471	375
Idaho	459	540	581	575	520	430	438	443	442	487
Illinois	5,005	5,294	5,549	5,672	5,137	4,677	4,243	4,020	4,349	4,835
Indiana	2,570	2,761	2,719	2,560	2,535	2,217	1,954	1,969	2,339	2,695
Iowa	1,615	1,724	1,879	1,905	1,840	1,664	1,360	1,685	1,603	1,808
Kansas	895	1,076	1,115	1,215	1,199	994	822	947	1,063	1,269
Kentucky	2,320	2,354	2,459	2,634	2,525	2,242	1,869	2,073	2,230	2,404
Louisiana	1,139	1,192	1,219	1,267	1,105	937	973	993	1,260	1,510
Maine	368	391	462	471	398	326	329	284	318	356
Maryland	1,943	2,014	2,223	2,376	2,228	1,988	1,669	1,574	1,608	1,714
Massachusetts	2,458	2,397	2,431	2,915	2,864	2,689	2,586	2,329	2,274	2,560
Michigan	3,858	4,187	4,686	4,691	4,248	4,179	3,753	4,111	3,495	4,009
Minnesota	2,058	2,236	2,208	2,190	1,914	1,549	1,457	1,502	1,636	1,879
Mississippi	1,530	1,661	1,916	2,042	1,966	1,774	1,490	1,586	1,762	1,985
Missouri	1,496	1,579	1,700	1,855	1,904	1,727	1,617	1,567	1,561	1,664
Montana	180	182	237	254	192	207	228	174	262	275
Nebraska	574	668	644	619	550	357	112	156	97	232
Nevada	332	340	362	392	346	346	296	295	208	171
New Hampshire	151	183	278	414	461	456	328	401	467	553
New Jersey	2,631	2,553	2,428	2,779	2,714	2,418	2,069	2,048	2,280	2,311
New Mexico	704	738	739	729	707	687	546	730	806	898
New York	12,600	13,019	13,006	13,713	13,463	13,324	13,021	12,339	12,151	13,710
North Carolina	2,545	2,700	2,984	3,253	3,043	2,812	2,648	2,789	3,362	3,877
North Dakota	252	237	236	266	224	167	126	85	—	—
Ohio	4,097	4,484	4,956	5,097	5,020	4,606	4,453	4,478	4,826	5,332
Oklahoma	1,211	1,273	1,446	1,415	1,291	1,188	1,237	1,391	1,463	1,615
Oregon	1,078	1,167	1,147	1,267	1,034	1,185	932	955	979	1,081
Pennsylvania	3,150	3,205	3,295	3,495	3,271	3,207	3,007	3,202	3,659	4,280
Rhode Island	398	414	422	421	552	430	453	417	464	547
South Carolina	1,022	1,181	1,366	1,844	1,300	1,321	1,313	1,421	1,667	1,882
South Dakota	354	448	442	438	442	356	348	414	383	445
Tennessee	2,203	2,225	2,439	2,366	2,345	2,167	2,170	2,302	2,381	2,476
Texas	4,246	4,148	5,092	5,479	5,560	5,245	4,951	5,340	6,142	6,830
Utah	559	708	674	647	328	395	503	399	401	588
Vermont	308	301	294	335	312	252	181	198	233	285
Virginia	1,744	1,928	2,111	2,017	2,048	1,976	1,813	2,015	2,038	2,075
Washington	1,841	1,992	1,863	1,822	1,980	1,715	1,657	1,656	1,866	1,974
West Virginia	1,285	1,412	1,583	1,598	1,510	1,308	1,234	1,063	1,005	1,069
Wisconsin	1,420	1,712	1,846	2,141	1,886	1,833	1,768	1,654	1,863	1,916
Wyoming	126	136	151	190	194	160	136	225	259	243
American Samoa	0	10	16	24	26	11	14	16	16	16
Guam	41	77	53	82	84	60	60	60	—	—
Puerto Rico	1,487	1,261	1,310	1,346	1,139	852	934	946	800	1,107
Virgin Islands	38	26	27	38	30	27	30	27	23	21

¹ National and regional totals exclude American Samoa, Guam, Puerto Rico, and the Virgin Islands.

Table 20
TOTAL ENROLLMENTS IN DIPLOMA NURSING PROGRAMS, BY NLN REGION AND STATE: 1980 TO 1989¹

NLN REGION AND STATE	NUMBER OF TOTAL ENROLLMENTS									
	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989
United States	41,048	41,009	42,348	42,007	37,256	30,179	22,641	18,927	18,060	20,418
North Atlantic	14,987	14,547	14,961	15,371	14,273	12,291	10,067	8,515	8,794	9,641
Midwest	17,191	17,586	18,036	17,587	15,117	11,908	7,958	6,130	5,559	5,665
South	7,489	7,495	8,138	7,999	7,089	5,425	4,214	3,944	4,202	4,755
West	1,381	1,381	1,213	1,050	777	555	402	338	305	357
Alabama	405	428	418	425	383	222	124	66	60	59
Alaska	0	0	0	0	0	0	0	0	—	—
Arizona	0	0	0	0	0	0	0	0	—	—
Arkansas	242	301	363	437	359	335	330	422	624	730
California	874	907	718	604	509	475	390	338	305	357
Colorado	207	189	181	242	160	80	12	0	—	—
Connecticut	913	854	838	869	834	639	528	511	553	622
Delaware	147	160	159	203	117	50	47	42	46	43
District of Columbia	87	38	0	0	0	0	0	0	—	—
Florida	286	286	296	312	309	218	151	140	160	205
Georgia	553	462	425	425	427	373	282	239	221	143
Hawaii	0	0	0	0	0	0	0	0	—	—
Idaho	0	0	0	0	0	0	0	0	—	—
Illinois	3,146	3,152	3,171	2,981	2,546	1,868	1,177	818	706	669
Indiana	1,015	1,011	1,018	1,027	1,082	963	720	510	250	203
Iowa	1,227	1,293	1,398	1,379	1,182	837	549	411	435	530
Kansas	304	401	401	426	259	155	90	64	52	63
Kentucky	218	206	169	0	0	0	0	0	—	—
Louisiana	706	715	763	738	795	756	711	603	579	526
Maine	353	328	310	263	209	125	58	17	—	—
Maryland	501	575	617	648	564	416	262	233	263	305
Massachusetts	2,301	2,176	2,125	2,111	1,895	1,502	1,139	941	741	851
Michigan	1,212	1,165	1,101	911	777	630	504	376	337	343
Minnesota	707	692	678	640	433	205	64	0	—	—
Mississippi	105	104	86	98	60	33	0	0	—	—
Missouri	2,153	2,216	2,213	2,300	2,015	1,573	1,235	1,091	1,084	1,244
Montana	0	0	0	0	0	0	0	0	—	—
Nebraska	995	1,081	1,113	1,073	925	896	406	189	73	76
Nevada	0	0	0	0	0	0	0	0	—	—
New Hampshire	307	233	201	169	131	105	59	39	9	—
New Jersey	2,132	2,168	2,275	2,381	2,330	2,377	2,081	1,882	2,306	2,397
New Mexico	0	0	0	0	0	0	0	0	—	—
New York	2,753	2,676	2,740	2,729	2,364	1,968	1,533	1,134	973	1,101
North Carolina	663	631	697	716	643	276	329	327	376	566
North Dakota	315	338	340	379	340	277	133	28	—	—
Ohio	4,701	4,951	5,312	5,200	4,466	3,708	2,706	2,392	2,351	2,343
Oklahoma	93	70	42	0	0	0	0	0	—	—
Oregon	300	285	314	204	108	0	0	0	—	—
Pennsylvania	5,821	5,712	6,075	6,390	6,163	5,333	4,481	3,835	4,083	4,549
Rhode Island	173	202	238	256	230	192	141	114	83	78
South Carolina	76	89	86	70	30	32	28	9	—	—
South Dakota	277	266	279	281	253	161	95	96	119	48
Tennessee	1,292	1,435	1,772	1,855	1,750	1,376	901	828	716	843
Texas	735	645	722	590	296	237	207	226	264	326
Utah	0	0	0	0	0	0	0	0	—	—
Vermont	0	0	0	0	0	0	0	0	—	—
Virginia	1,256	1,190	1,317	1,308	1,133	866	682	691	774	891
Washington	0	0	0	0	0	0	0	0	—	—
West Virginia	358	358	365	377	340	285	207	160	165	161
Wisconsin	1,139	1,020	1,012	990	839	635	279	155	152	146
Wyoming	0	0	0	0	0	0	0	0	—	—
American Samoa	0	0	0	0	0	0	0	0	—	—
Guam	0	0	0	0	0	0	0	0	—	—
Puerto Rico	0	0	0	0	0	0	0	0	—	—
Virgin Islands	0	0	0	0	0	0	0	0	—	—

¹ National and regional totals exclude American Samoa, Guam, Puerto Rico, and the Virgin Islands.

Table 21
BASIC AND RN STUDENT ENROLLMENTS IN BACCALAUREATE NURSING PROGRAMS:
1980 TO 1989¹

YEAR	ENROLLMENTS IN BACCALAUREATE NURSING PROGRAMS			
	Total Enrollments	Basic Programs		BRN* Programs
		Basic Students	RN Students	RN Students
1980	129,111	95,858	20,722	12,531
1981	126,881	93,967	19,650	13,264
1982	129,125	94,363	20,933	14,729
1983	137,792	98,941	21,192	17,659
1984	136,120	95,008	22,520	18,592
1985	133,960	91,020	22,812	20,128
1986	127,957	81,602	25,247	21,108
1987	119,996	73,621	26,503	19,872
1988	113,105	70,078	25,597	17,430
1989	116,539	74,865	24,524	17,150

¹ Excludes American Samoa, Guam, Puerto Rico, and the Virgin Islands.

* BRN programs are baccalaureate programs that admit only RNs.

Table 22
FULL-TIME AND PART-TIME ENROLLMENTS OF BASIC AND RN STUDENTS
IN BACCALAUREATE NURSING PROGRAMS: 1985 TO 1989¹

YEAR AND TYPE OF STUDENT	ENROLLMENTS IN BACCALAUREATE NURSING PROGRAMS		
	Total	Full Time	Part Time
1985 (Total)	133,960	93,479	40,481
Basic Students	91,020	82,618	8,402
RNs in Basic Programs	22,812	7,196	15,616
RNs in BRN* Programs	20,128	3,665	16,463
1986 (Total)	127,957	85,170	42,787
Basic Students	81,602	71,416	10,186
RNs in Basic Programs	25,247	8,251	16,996
RNs in BRN* Programs	21,108	5,503	15,605
1987 (Total)	119,996	88,427	31,569
Basic Students	73,621	63,917	9,704
RNs in Basic Programs	26,503	19,333	7,170
RNs in BRN* Programs	19,872	5,177	14,695
1988 (Total)	113,105	70,444	42,661
Basic Students	70,078	60,504	9,574
RNs in Basic Programs	25,597	7,427	18,170
RNs in BRN* Programs	17,430	2,513	14,917
1989 (Total)	116,539	19,318	97,221
Basic Students	74,865	64,127	10,738
RNs in Basic Programs	24,524	5,371	19,153
RNs in BRN* Programs	17,150	3,209	13,941

¹ National and regional totals do not include American Samoa, Guam, Puerto Rico, and the Virgin Islands.

* BRN programs are baccalaureate programs that admit only RNs.

Table 23
TOTAL ENROLLMENTS IN BACCALAUREATE NURSING PROGRAMS, BY NLN REGION AND STATE: 1985 TO 1989¹

NLN REGION AND STATE	ENROLLMENTS IN BACCALAUREATE NURSING PROGRAMS ²									
	1985		1986		1987		1988		1989	
	Total	RNs Only	Total	RNs Only	Total	RNs Only	Total	RNs Only	Total	RNs Only
United States	133,960	42,940	127,957	45,355	119,996	46,375	113,105	43,027	116,327	41,674
North Atlantic	43,447	16,533	40,783	17,718	36,825	17,115	33,258	15,563	33,133	15,391
Midwest	38,430	11,417	37,938	13,318	34,874	13,051	33,808	12,625	33,785	11,869
South	33,706	7,857	32,526	8,528	31,700	9,136	30,742	8,608	34,169	8,535
West	18,377	7,133	16,710	6,791	16,597	7,073	15,297	6,231	15,240	5,879
Alabama	3,321	558	2,714	438	2,423	432	2,338	434	2,527	487
Alaska	401	84	409	80	277	74	277	74	265	66
Arizona	1,440	618	1,336	571	1,338	747	1,075	480	1,018	472
Arkansas	708	82	673	79	655	75	607	58	756	84
California	9,768	4,629	8,138	3,880	8,551	4,242	7,932	3,981	7,814	3,824
Colorado	1,317	536	1,787	1,062	1,280	569	1,037	452	1,264	508
Connecticut	2,038	557	1,850	569	1,773	697	1,688	676	1,835	847
Delaware	816	78	779	154	593	126	595	184	598	179
District of Columbia	128	1,190	145	1,021	178	757	705	58	638	86
Florida	2,905	1,148	2,564	1,024	2,579	1,149	2,670	1,252	2,605	1,217
Georgia	1,435	238	1,365	340	1,231	330	1,329	341	1,460	351
Hawaii	246	188	265	37	515	114	586	232	312	28
Idaho	128	91	151	119	311	204	324	141	363	140
Illinois	6,317	2,221	5,839	2,013	5,266	2,017	4,921	1,862	4,826	1,798
Indiana	4,556	1,456	5,070	1,484	5,155	1,804	4,872	1,454	4,455	1,134
Iowa	1,717	482	1,545	488	1,589	768	1,937	1,158	1,421	633
Kansas	1,442	336	1,405	542	1,128	348	1,201	365	1,404	464
Kentucky	2,481	999	2,416	764	2,174	697	2,433	862	2,727	881
Louisiana	3,346	260	3,705	308	3,685	324	3,898	275	5,389	262
Maine	705	139	660	137	880	180	888	222	950	153
Maryland	1,638	451	1,627	461	1,677	709	1,376	618	1,663	844
Massachusetts	6,318	2,319	5,874	2,480	4,908	1,938	4,548	1,970	4,465	1,644
Michigan	5,144	1,481	5,523	2,240	4,641	1,484	4,599	1,503	4,639	1,772
Minnesota	1,933	658	1,635	497	1,690	644	1,399	555	1,365	470
Mississippi	1,182	177	1,413	234	1,192	194	1,099	141	1,134	139
Missouri	2,563	1,064	3,146	1,780	2,708	1,491	2,445	1,388	2,319	1,284
Montana	752	12	670	11	580	15	624	18	634	13
Nebraska	1,776	616	1,565	817	1,628	804	1,843	817	2,110	815
Nevada	308	72	282	101	343	150	389	158	393	112
New Hampshire	739	224	637	205	564	201	497	168	519	167
New Jersey	3,660	1,663	3,428	1,636	3,093	1,613	2,352	1,296	2,607	1,356
New Mexico	408	124	312	101	283	93	302	121	362	188
New York	15,220	6,907	14,508	7,682	12,996	7,203	11,809	6,828	11,629	7,026
North Carolina	2,595	764	2,285	662	2,313	750	1,900	552	1,936	527
North Dakota	807	114	762	156	696	159	702	151	877	139
Ohio	6,001	1,593	5,832	1,835	5,598	1,817	5,175	1,604	5,885	2,096
Oklahoma	1,043	166	984	244	1,224	291	1,026	246	1,151	204
Oregon	1,095	205	894	150	825	160	738	122	774	108
Pennsylvania	11,379	4,160	10,759	4,415	10,083	4,795	9,250	3,886	9,022	3,692
Rhode Island	972	222	919	165	808	126	597	127	592	131
South Carolina	1,790	379	2,115	920	1,502	508	1,378	381	1,320	271
South Dakota	871	183	760	136	761	167	732	177	763	131
Tennessee	2,512	532	2,398	613	2,673	1,006	2,646	1,017	2,646	984
Texas	5,282	1,020	4,886	1,094	4,987	1,240	4,850	1,174	5,393	1,155
Utah	584	134	614	207	570	175	510	132	544	129
Vermont	410	119	348	97	370	154	329	148	278	110
Virginia	2,417	681	2,303	815	2,199	860	2,143	816	2,402	791
Washington	1,719	407	1,610	431	1,465	488	1,238	276	1,228	257
West Virginia	1,051	402	1,078	532	1,186	571	1,049	441	1,060	338
Wisconsin	5,303	1,213	4,856	1,330	4,014	1,548	3,982	1,591	3,721	1,133
Wyoming	211	33	242	41	259	42	265	40	269	34
American Samoa	0	0	0	0	0	0	—	—	—	—
Guam	5	5	0	0	12	12	0	—	45	26
Puerto Rico	3,092	800	3,332	624	3,153	538	2,884	766	2,551	678
Virgin Islands	38	10	31	5	52	6	33	6	35	9

¹ National and regional totals exclude American Samoa, Guam, Puerto Rico, and the Virgin Islands.

² Totals include RNs in basic programs, RNs in BRN programs, and basic BSN students.

Table 24
GRADUATIONS FROM BASIC RN PROGRAMS AND PERCENTAGE CHANGE
FROM PREVIOUS YEAR, BY TYPE OF PROGRAM: 1969-70 TO 1988-89¹

ACADEMIC YEAR	ALL BASIC RN PROGRAMS		BACCALAUREATE PROGRAMS		ASSOCIATE DEGREE PROGRAMS		DIPLOMA PROGRAMS	
	Number of Graduations	Percent Change	Number of Graduations	Percent Change	Number of Graduations	Percent Change	Number of Graduations	Percent Change
1969-70	43,103	+3.1	9,069	+8.5	11,483	+33.9	22,551	-9.3
1970-71	46,455	+7.8	9,856	+8.7	14,534	+26.6	22,065	-2.2
1971-72	51,304	+10.4	10,968	+11.3	18,926	+30.2	21,410	-3.0
1972-73	58,881	+14.8	13,055	+19.0	24,497	+29.4	21,329	-0.4
1973-74	67,061	+13.9	16,957	+29.9	28,919	+18.0	21,185	-0.7
1974-75	73,915	+10.2	20,170	+18.9	32,183	+11.3	21,562	+1.8
1975-76	77,065	+4.3	22,579	+11.9	34,625	+7.6	19,861	-7.9
1976-77	77,755	+0.9	23,452	+3.9	36,289	+4.8	18,014	-9.3
1977-78	77,874	+0.1	24,187	+3.1	36,556	+0.7	17,131	-4.9
1978-79	77,132	-1.0	25,048	+3.6	36,264	-0.8	15,820	-7.7
1979-80	75,523	-2.1	24,994	-0.2	36,034	-0.6	14,495	-8.4
1980-81	73,985	-2.0	24,370	-2.5	36,712	+1.9	12,903	-11.0
1981-82	74,052	+0.1	24,081	-1.2	38,289	+4.3	11,682	-9.5
1982-83	77,408	+4.5	23,855	-0.9	41,849	+9.3	11,704	+0.2
1983-84	80,312	+3.8	23,718	-0.6	44,394	+6.1	12,200	+4.2
1984-85	82,075	+2.2	24,975	+5.3	45,208	+1.8	11,892	-2.5
1985-86	77,027	-6.2	25,170	+0.8	41,333	-8.6	10,524	-11.5
1986-87	70,561	-8.4	23,761	-5.6	38,528	-6.8	8,272	-21.4
1987-88	64,839	-8.0	21,504	-9.5	37,397	-2.9	5,938	-28.2
1988-89	61,660	-4.9	18,997	-11.6	37,837	+1.2	4,826	-18.7

¹ Excludes American Samoa, Guam, Puerto Rico, and the Virgin Islands.

Table 25
GRADUATIONS FROM PUBLIC AND PRIVATE BASIC RN PROGRAMS, BY TYPE OF PROGRAM: 1979-80 TO 1988-89¹

PUBLIC AND PRIVATE NURSING PROGRAMS	NUMBER OF GRADUATIONS									
	1979-80	1980-81	1981-82	1982-83	1983-84	1984-85	1985-86	1986-87	1987-88	1988-89
All Programs	75,523	73,985	74,052	77,408	80,312	82,075	77,027	70,561	64,839	61,660
Public	48,773	48,567	50,118	53,254	55,270	56,216	54,456	50,865	48,608	47,644
Private	26,750	25,418	23,934	24,154	25,042	25,859	22,571	19,696	16,231	14,016
Baccalaureate	24,994	24,370	24,081	23,855	23,718	24,975	25,170	23,761	21,504	18,997
Public	15,100	14,478	14,532	14,470	14,112	15,176	15,977	14,746	13,568	12,203
Private	9,894	9,892	9,549	9,385	9,606	9,799	9,193	9,015	7,936	6,794
Associate Degree	36,034	36,712	38,289	41,849	44,394	45,208	41,333	38,528	37,397	37,837
Public	31,904	32,560	33,988	37,097	39,314	39,521	36,806	34,696	33,795	34,460
Private	4,130	4,152	4,301	4,752	5,080	5,687	4,527	3,832	3,602	3,377
Diploma	14,495	12,903	11,682	11,704	12,200	11,892	10,524	8,272	5,938	4,826
Public	1,769	1,529	1,598	1,687	1,844	1,519	1,673	1,423	1,245	981
Private	12,726	11,374	10,084	10,017	10,356	10,373	8,851	6,849	4,693	3,845

¹ Excludes American Samoa, Guam, Puerto Rico, and the Virgin Islands.

Table 26
GRADUATIONS FROM ALL BASIC RN PROGRAMS, BY NLN REGION AND STATE: 1979-80 TO 1988-89¹

NLN REGION AND STATE	NUMBER OF GRADUATIONS									
	1979-80	1980-81	1981-82	1982-83	1983-84	1984-85	1985-86	1986-87	1987-88	1988-89
United States	75,523	73,985	74,052	77,408	80,312	82,075	77,027	70,561	64,839	61,660
North Atlantic	20,313	20,318	19,415	19,497	19,807	20,484	19,622	18,274	16,617	15,054
Midwest	23,965	22,523	22,508	23,969	25,041	25,208	23,378	20,664	18,072	17,264
South	21,998	20,740	20,914	22,391	24,308	25,181	23,250	21,397	20,123	19,768
West	10,657	10,404	11,215	11,551	11,066	11,202	10,777	10,226	10,027	9,574
Alabama	1,628	1,590	1,646	1,778	2,037	2,094	1,857	1,587	1,430	1,354
Alaska	37	37	71	78	56	78	61	51	46	64
Arizona	779	776	822	869	821	878	797	795	767	784
Arkansas	691	611	654	769	809	778	771	726	685	687
California	5,177	5,427	5,961	5,958	5,718	5,679	5,566	5,125	4,969	4,716
Colorado	772	608	674	607	674	667	585	521	552	524
Connecticut	1,000	976	943	914	846	1,003	917	814	733	663
Delaware	384	332	371	395	377	334	311	308	278	267
District of Columbia	342	391	344	284	312	352	332	279	246	231
Florida	2,387	2,649	2,698	2,917	3,342	3,272	2,995	2,655	2,715	2,504
Georgia	1,312	1,192	1,240	1,310	1,361	1,731	1,547	1,432	1,236	1,206
Hawaii	158	163	165	180	154	129	172	133	202	170
Idaho	286	237	260	295	298	257	249	212	228	214
Illinois	4,281	4,197	4,084	4,479	4,513	4,299	4,012	3,370	2,974	2,822
Indiana	2,006	1,922	1,947	2,140	1,979	2,131	2,230	2,026	1,755	1,734
Iowa	1,570	1,620	1,609	1,702	1,649	1,776	1,566	1,385	1,135	1,173
Kansas	968	949	984	1,029	1,071	1,229	1,051	915	843	812
Kentucky	1,282	1,178	1,157	1,290	1,304	1,325	1,287	1,092	1,148	1,193
Louisiana	965	928	955	957	956	939	1,000	998	999	994
Maine	395	383	381	446	422	372	379	364	288	310
Maryland	1,316	1,294	1,335	1,441	1,576	1,490	1,357	1,205	1,026	920
Massachusetts	2,669	2,675	2,489	2,612	2,584	2,736	2,420	2,386	2,029	1,605
Michigan	2,963	2,937	3,118	3,229	3,577	3,542	3,136	3,119	2,763	2,701
Minnesota	1,805	1,736	1,709	1,722	1,741	1,830	1,500	1,246	1,125	1,141
Mississippi	888	871	859	949	1,027	1,033	1,013	1,035	851	799
Missouri	1,811	1,727	1,682	1,808	1,933	1,947	1,859	1,461	1,397	1,358
Montana	209	205	197	212	254	244	258	245	203	208
Nebraska	713	699	788	782	825	819	503	430	288	321
Nevada	159	140	167	186	187	186	171	153	182	149
New Hampshire	316	278	280	292	333	383	334	311	305	275
New Jersey	2,244	2,260	2,034	2,014	2,044	2,010	2,072	1,863	1,678	1,570
New Mexico	438	315	355	384	382	363	407	430	385	418
New York	7,642	7,541	7,300	7,111	7,294	7,114	6,812	6,467	6,052	5,712
North Carolina	1,921	1,938	1,932	1,946	2,048	2,598	1,967	1,759	1,722	1,760
North Dakota	445	435	438	398	490	416	419	310	179	202
Ohio	4,168	4,061	3,936	4,317	4,659	4,748	4,782	4,355	3,753	3,459
Oklahoma	847	841	819	930	902	840	782	805	786	902
Oregon	789	719	768	866	711	757	740	748	755	643
Pennsylvania	4,636	4,828	4,588	4,803	4,982	5,441	5,304	4,844	4,459	3,835
Rhode Island	486	464	533	480	504	521	532	457	404	393
South Carolina	674	586	675	705	927	901	889	884	846	863
South Dakota	468	421	402	433	450	434	421	324	378	322
Tennessee	1,653	1,435	1,559	1,792	1,830	1,912	1,850	1,673	1,431	1,296
Texas	3,553	3,339	3,114	3,168	3,524	3,652	3,425	3,347	3,186	3,320
Utah	494	480	448	567	396	542	373	402	454	477
Vermont	198	190	172	177	199	218	209	181	145	113
Virginia	1,627	1,556	1,501	1,612	1,776	1,745	1,677	1,465	1,459	1,356
Washington	1,261	1,207	1,242	1,272	1,306	1,291	1,263	1,293	1,149	1,056
West Virginia	745	732	770	796	889	871	833	734	603	614
Wisconsin	1,867	1,918	1,811	1,930	2,154	2,127	1,899	1,723	1,482	1,219
Wyoming	78	81	85	77	109	131	135	118	135	151
American Samoa	0	0	0	0	32	11	10	10	10	10
Guam	16	16	17	11	11	12	12	12	—	0
Puerto Rico	866	874	893	1,045	1,127	1,286	1,017	1,045	908	962
Virgin Islands	10	15	13	10	8	12	13	12	17	11

¹ National and regional totals exclude American Samoa, Guam, Puerto Rico, and the Virgin Islands.

Table 27
GRADUATIONS FROM BACCALAUREATE NURSING PROGRAMS,
BY NLN REGION AND STATE: 1979-80 TO 1988-89¹

NLN REGION AND STATE	NUMBER OF GRADUATIONS ²									
	1979-80	1980-81	1981-82	1982-83	1983-84	1984-85	1985-86	1986-87	1987-88	1988-89
United States	24,994	24,370	24,081	23,855	23,718	24,975	25,170	23,761	21,584	18,997
North Atlantic	7,131	7,208	7,207	6,903	6,557	6,915	6,744	6,320	5,720	4,802
Midwest	7,239	7,243	6,953	7,314	7,182	7,479	7,600	7,218	6,430	5,756
South	7,267	6,950	6,958	6,760	7,132	7,535	7,562	6,970	6,423	5,804
West	3,357	2,969	2,968	2,878	2,847	3,046	3,264	3,253	2,931	2,635
Alabama	629	612	617	706	825	955	781	688	568	511
Alaska	26	18	35	36	34	38	38	26	26	34
Arizona	304	268	278	255	250	310	251	279	247	230
Arkansas	189	149	155	163	235	185	207	188	200	152
California	1,277	1,264	1,244	1,189	1,153	1,252	1,362	1,394	1,283	1,163
Colorado	397	249	269	227	244	250	266	179	210	179
Connecticut	366	372	329	343	292	359	363	302	286	260
Delaware	188	149	190	184	161	180	166	167	137	105
District of Columbia	266	290	258	227	243	293	294	218	191	176
Florida	444	519	479	451	574	630	570	561	521	503
Georgia	399	337	347	392	395	467	425	446	415	326
Hawaii	72	80	64	70	52	0	65	89	90	40
Idaho	90	49	44	43	37	33	31	34	26	32
Illinois	1,069	1,207	1,055	1,182	1,122	1,171	1,185	1,156	984	943
Indiana	704	633	673	771	630	739	899	784	774	701
Iowa	474	446	451	417	398	432	438	410	322	254
Kansas	399	424	421	422	399	491	447	408	291	281
Kentucky	234	194	187	217	229	498	319	365	342	342
Louisiana	456	386	452	408	401	438	450	490	505	505
Maine	138	126	124	113	144	171	176	166	159	159
Maryland	427	372	418	443	436	404	393	379	345	282
Massachusetts	864	865	956	967	958	1,032	917	862	796	631
Michigan	925	943	917	945	960	898	902	897	850	862
Minnesota	628	613	616	588	598	582	507	466	415	322
Mississippi	297	271	286	293	324	337	356	359	309	208
Missouri	407	413	474	480	464	458	432	319	352	333
Montana	158	151	130	127	164	166	175	174	144	139
Nebraska	176	178	202	180	207	264	160	152	185	192
Nevada	54	35	41	34	41	38	43	33	35	34
New Hampshire	107	120	120	127	116	142	124	118	97	86
New Jersey	525	535	537	550	377	387	419	413	382	347
New Mexico	101	69	73	74	81	67	86	73	71	50
New York	2,876	2,877	2,713	2,388	2,323	2,166	1,982	1,959	1,724	1,468
North Carolina	748	809	752	667	611	663	626	558	508	440
North Dakota	237	210	206	191	234	163	192	196	179	202
Ohio	1,124	1,094	912	992	1,054	1,209	1,315	1,326	1,198	1,006
Oklahoma	356	343	331	306	311	306	339	314	254	327
Oregon	227	140	201	210	170	213	266	288	248	221
Pennsylvania	1,480	1,567	1,585	1,675	1,640	1,875	1,957	1,813	1,677	1,370
Rhode Island	253	246	322	252	261	262	279	214	193	154
South Carolina	222	216	209	232	283	264	363	354	309	279
South Dakota	192	171	198	183	184	174	175	157	152	112
Tennessee	417	369	431	448	480	489	537	449	415	355
Texas	1,758	1,642	1,507	1,380	1,252	1,440	1,293	1,232	1,105	1,000
Utah	122	104	82	128	154	147	168	192	162	146
Vermont	68	61	68	68	73	75	72	78	71	46
Virginia	558	572	559	530	623	594	573	528	476	426
Washington	494	501	480	461	436	496	461	453	366	333
West Virginia	153	159	168	158	158	171	163	145	143	117
Wisconsin	904	911	828	902	932	898	948	945	728	548
Wyoming	35	41	27	24	31	36	52	39	23	34
American Samoa	0	0	0	0	0	0	0	0	—	—
Guam	0	0	0	0	0	0	0	0	—	0
Puerto Rico	417	434	442	543	492	685	625	553	572	626
Virgin Islands	0	0	0	0	0	0	4	7	9	3

¹ National and regional totals exclude American Samoa, Guam, Puerto Rico, and the Virgin Islands.

² Includes basic students only.

Table 28
GRADUATIONS FROM ASSOCIATE DEGREE NURSING PROGRAMS,
BY NLN REGION AND STATE: 1979-80 TO 1988-89¹

NLN REGION AND STATE	NUMBER OF GRADUATIONS									
	1979-80	1980-81	1981-82	1982-83	1983-84	1984-85	1985-86	1986-87	1987-88	1988-89
United States	36,034	36,712	38,289	41,849	44,394	45,208	41,333	38,528	37,397	37,837
North Atlantic	7,934	8,285	8,000	8,507	8,914	9,231	8,791	8,530	8,164	8,101
Midwest	9,667	9,843	10,549	11,580	12,612	12,679	11,512	10,418	9,734	10,050
South	11,671	11,632	11,970	13,488	15,034	15,454	13,744	12,794	12,570	12,884
West	6,762	6,952	7,770	8,274	7,834	7,844	7,286	6,786	6,929	6,802
Alabama	878	889	918	941	1,117	1,029	972	865	842	825
Alaska	31	19	36	42	22	40	23	25	20	30
Arizona	475	506	544	614	571	568	546	516	520	554
Arkansas	450	396	448	537	482	509	475	435	361	400
California	3,597	3,840	4,375	4,495	4,326	4,181	4,002	3,544	3,519	3,416
Colorado	302	299	343	338	367	351	294	342	342	345
Connecticut	382	358	381	333	338	377	310	309	282	227
Delaware	97	126	123	147	137	146	133	129	133	153
District of Columbia	31	65	51	57	69	59	38	61	55	55
Florida	1,795	1,998	2,082	2,346	2,648	2,505	2,315	2,017	2,143	1,944
Georgia	684	675	746	788	890	1,159	981	820	745	826
Hawaii	86	83	101	110	102	129	107	44	112	130
Idaho	196	188	216	252	261	224	218	178	202	182
Illinois	2,009	1,931	2,079	2,338	2,475	2,260	2,096	1,818	1,712	1,724
Indiana	993	1,006	1,017	1,143	1,116	1,098	1,078	984	845	952
Iowa	627	779	779	892	858	921	778	795	699	807
Kansas	333	362	426	438	568	603	511	470	519	521
Kentucky	905	894	882	994	1,087	1,096	789	773	783	851
Louisiana	292	367	326	378	344	344	344	326	344	295
Maine	156	150	136	242	219	189	161	163	122	151
Maryland	721	785	763	841	948	897	825	732	609	564
Massachusetts	1,008	1,049	881	1,037	1,042	1,055	995	1,129	942	890
Michigan	1,432	1,546	1,772	1,861	2,287	2,346	1,980	2,016	1,755	1,727
Minnesota	936	913	900	919	959	965	901	780	710	819
Mississippi	554	591	545	630	678	670	657	676	542	591
Missouri	657	633	597	705	757	866	804	677	666	686
Montana	51	54	67	85	90	78	83	71	59	69
Nebraska	218	238	284	294	265	247	65	56	41	72
Nevada	105	105	126	152	146	148	128	120	147	115
New Hampshire	75	81	80	94	177	203	187	179	179	189
New Jersey	1,038	1,140	987	909	1,084	1,026	975	820	794	783
New Mexico	337	246	282	310	301	296	321	357	314	368
New York	3,737	3,765	3,848	4,014	4,112	4,278	4,201	3,985	4,002	4,025
North Carolina	957	914	1,009	1,090	1,245	1,719	1,159	1,070	1,126	1,254
North Dakota	87	93	100	94	106	114	87	61	—	—
Ohio	1,670	1,629	1,789	1,958	2,116	2,114	2,199	1,926	1,868	1,896
Oklahoma	468	464	465	583	591	534	443	491	532	575
Oregon	464	479	494	573	458	544	474	460	507	422
Pennsylvania	1,101	1,246	1,242	1,405	1,432	1,567	1,466	1,450	1,412	1,347
Rhode Island	179	172	167	191	178	188	188	202	169	214
South Carolina	428	353	394	459	615	608	514	524	537	584
South Dakota	185	170	148	191	200	201	202	139	209	193
Tennessee	870	769	838	959	896	906	854	840	807	824
Texas	1,516	1,441	1,422	1,564	2,071	2,088	2,023	2,013	1,973	2,161
Utah	372	385	366	439	242	395	205	210	292	331
Vermont	130	129	104	109	126	143	137	103	74	67
Virginia	661	627	647	796	811	796	825	709	799	775
Washington	703	706	762	811	870	795	802	840	783	723
West Virginia	492	469	505	551	611	594	568	503	409	415
Wisconsin	520	543	658	747	905	—	811	696	710	653
Wyoming	43	40	58	53	78	95	83	79	112	117
American Samoa	0	0	0	0	32	11	10	10	10	10
Guam	16	16	17	11	11	12	12	12	—	—
Puerto Rico	449	440	451	502	635	601	392	492	336	336
Virgin Islands	10	15	13	10	8	12	9	5	8	8

¹ National and regional totals exclude American Samoa, Guam, Puerto Rico, and the Virgin Islands.

Table 29
GRADUATIONS FROM DIPLOMA NURSING PROGRAMS, BY NLN REGION AND STATE: 1979-80 TO 1988-89¹

NLN REGION AND STATE	NUMBER OF GRADUATIONS									
	1979-80	1980-81	1981-82	1982-83	1983-84	1984-85	1985-86	1986-87	1987-88	1988-89
United States	14,495	12,903	11,682	11,704	12,200	11,892	10,524	8,272	5,938	4,003
North Atlantic	5,247	4,825	4,213	4,087	4,426	4,338	4,087	3,424	2,733	2,151
Midwest	6,159	5,437	5,006	5,075	5,247	5,050	4,266	3,028	1,908	1,458
South	2,551	2,158	1,986	2,143	2,142	2,192	1,944	1,633	1,130	1,080
West	538	483	477	399	385	312	277	187	167	137
Alabama	121	89	111	131	95	110	104	34	20	18
Alaska	0	0	0	0	0	0	0	0	—	—
Arizona	0	0	0	0	0	0	0	0	—	—
Arkansas	72	66	51	69	92	84	89	103	90	135
California	303	323	342	274	239	246	202	187	167	137
Colorado	73	60	62	42	63	66	25	0	—	—
Connecticut	252	246	233	238	216	267	244	203	165	176
Delaware	99	55	58	64	79	8	12	12	8	9
District of Columbia	45	36	35	0	0	0	0	0	—	—
Florida	148	132	137	120	120	137	110	77	51	57
Georgia	229	180	147	130	76	105	141	166	76	54
Hawaii	0	0	0	0	0	0	0	0	—	—
Idaho	0	0	0	0	0	0	0	0	—	—
Illinois	1,203	1,059	950	959	916	868	731	396	278	155
Indiana	309	283	257	226	233	294	253	258	136	81
Iowa	469	395	379	393	393	423	350	180	114	112
Kansas	236	163	137	108	104	135	93	37	33	10
Kentucky	143	90	88	107	0	0	0	0	—	—
Louisiana	217	173	197	186	204	194	218	222	181	194
Maine	101	107	121	82	90	39	47	25	—	—
Maryland	168	137	154	157	192	189	139	94	72	74
Massachusetts	797	761	632	608	534	649	508	395	291	164
Michigan	606	448	429	423	330	306	254	206	158	112
Minnesota	241	210	193	215	184	183	92	0	—	—
Mississippi	37	9	28	26	25	26	0	0	—	—
Missouri	747	681	611	623	712	623	623	465	379	339
Montana	0	0	0	0	0	0	0	0	—	—
Nebraska	319	283	302	308	353	308	278	222	62	57
Nevada	0	0	0	0	0	0	0	0	—	—
New Hampshire	134	77	80	71	40	38	23	14	29	—
New Jersey	681	585	510	555	583	597	678	630	502	440
New Mexico	0	0	0	0	0	0	0	0	—	—
New York	1,029	899	739	709	859	670	629	523	325	219
North Carolina	216	215	171	189	192	216	182	131	88	66
North Dakota	121	132	132	113	150	139	140	51	—	—
Ohio	1,374	1,338	1,235	1,367	1,499	1,425	1,268	1,103	687	557
Oklahoma	23	34	23	41	0	0	0	0	—	—
Oregon	98	100	73	83	83	0	0	0	—	—
Pennsylvania	2,055	2,013	1,761	1,723	1,910	1,999	1,881	1,581	1,370	1,118
Rhode Island	54	46	44	37	65	71	65	41	42	25
South Carolina	24	17	12	14	29	29	12	6	—	—
South Dakota	91	80	56	59	66	59	44	28	17	17
Tennessee	366	297	290	385	454	517	459	384	209	136
Texas	279	256	185	224	201	124	109	102	108	109
Utah	0	0	0	0	0	0	0	0	—	—
Vermont	0	0	0	0	0	0	0	0	—	—
Virginia	408	357	295	277	342	355	279	228	184	155
Washington	64	0	0	0	0	0	0	0	—	—
West Virginia	100	104	97	87	120	106	102	86	51	82
Wisconsin	443	365	325	281	317	285	140	82	44	18
Wyoming	0	0	0	0	0	0	0	0	—	—
American Samoa	0	0	0	0	0	0	0	0	—	—
Guam	0	0	0	0	0	0	0	0	—	—
Puerto Rico	0	0	0	0	0	0	0	0	—	—
Virgin Islands	0	0	0	0	0	0	0	0	—	—

¹ National and regional totals exclude American Samoa, Guam, Puerto Rico, and the Virgin Islands.

Table 30
BASIC AND RN STUDENT GRADUATIONS FROM BACCALAUREATE NURSING PROGRAMS:
1979-80 TO 1988-89¹

YEAR	GRADUATIONS FROM BACCALAUREATE NURSING PROGRAMS			
	Total Graduations	Basic Programs		BRN* Programs
		Basic Students	RN Students	RN Students
1979-80	32,312	24,994	4,477	2,841
1980-81	32,608	24,370	4,872	3,366
1981-82	33,252	24,081	5,748	3,423
1982-83	32,748	23,855	5,654	3,239
1983-84	33,803	23,718	6,275	3,810
1984-85	34,569	24,975	5,587	4,007
1985-86	35,550	25,170	5,698	4,682
1986-87	34,475	23,761	6,591	4,123
1987-88	32,672	21,504	6,710	4,458
1988-89	30,543	18,997	7,195	4,351

¹ Excludes American Samoa, Guam, Puerto Rico, and the Virgin Islands.

* BRN programs are baccalaureate programs that admit only RNs.

Table 31
GRADUATIONS OF REGISTERED NURSES FROM BACCALAUREATE NURSING PROGRAMS,
BY PREVIOUS BASIC NURSING EDUCATION AND REGION: 1984-85 TO 1988-89¹

YEAR AND REGION	BACCALAUREATE PROGRAMS ACCEPTING RNs	PREVIOUS NURSING CREDENTIAL ²		
		Total	Diploma	Associate Degree
1984-85 (Total)	602	9,594	4,115	5,479
North Atlantic	156	2,946	1,422	1,524
Midwest	180	2,709	1,437	1,272
South	189	2,588	887	1,701
West	77	1,351	369	982
1985-86 (Total)	616	10,380	4,428	5,952
North Atlantic	164	2,827	1,342	1,485
Midwest	186	2,897	1,437	1,460
South	191	2,556	932	1,624
West	75	2,100	717	1,383
1986-87 (Total)	623	10,714	4,515	6,199
North Atlantic	160	3,172	1,579	1,593
Midwest	188	3,285	1,651	1,634
South	197	2,681	840	1,841
West	78	1,576	445	1,131
1987-88 (Total)	626	11,168	4,485	6,683
North Atlantic	159	3,007	1,488	1,519
Midwest	194	3,731	1,748	1,983
South	197	2,833	892	1,941
West	76	1,597	357	1,240
1988-89 (Total)	630	11,546	4,352	7,194
North Atlantic	158	3,224	1,452	1,772
Midwest	199	3,611	1,701	1,910
South	197	2,880	776	2,104
West	76	1,831	423	1,408

¹ Excludes American Samoa, Guam, Puerto Rico, and the Virgin Islands.

² Includes RNs in basic programs, RNs in BRN programs, and basic BSN students.

Table 32
TOTAL GRADUATIONS FROM BACCALAUREATE NURSING PROGRAMS, BY NLN REGION AND STATE: 1985 TO 1989¹

NLN REGION AND STATE	GRADUATIONS IN BACCALAUREATE NURSING PROGRAMS ²									
	1985		1986		1987		1988		1989	
	Total	RNs Only	Total	RNs Only	Total	RNs Only	Total	RNs Only	Total	RNs Only
United States	34,569	9,594	35,550	10,380	34,475	10,714	32,672	11,168	30,543	11,546
North Atlantic	9,861	2,946	9,571	2,827	9,492	3,172	8,727	3,007	8,026	3,224
Midwest	10,188	2,709	10,497	2,897	10,503	3,285	10,161	3,731	9,367	3,611
South	10,123	2,588	10,118	2,556	9,651	2,681	9,256	2,833	8,684	2,880
West	4,397	1,351	5,364	2,100	4,829	1,576	4,528	1,597	4,466	1,831
Alabama	1,132	177	949	168	866	178	760	192	782	271
Alaska	48	10	50	12	58	32	58	32	43	9
Arizona	452	142	615	364	461	182	439	192	590	360
Arkansas	216	31	232	25	229	41	246	46	191	39
California	1,903	651	2,108	746	2,127	733	2,050	767	1,926	763
Colorado	354	104	801	535	308	129	375	165	406	227
Connecticut	442	83	475	112	394	92	417	131	362	102
Delaware	209	29	204	38	192	25	162	25	142	37
District of Columbia	355	62	333	39	271	53	223	32	219	43
Florida	1,031	401	915	345	936	375	861	340	887	384
Georgia	543	76	545	120	608	162	597	182	483	157
Hawaii	48	48	85	20	171	82	126	36	89	49
Idaho	59	26	62	31	67	33	58	32	77	45
Illinois	1,644	473	1,687	502	1,755	599	1,567	583	1,557	614
Indiana	1,019	280	1,164	265	1,122	338	1,100	326	1,022	321
Iowa	521	89	561	123	590	180	839	517	445	191
Kansas	577	86	527	80	494	86	387	96	395	114
Kentucky	493	264	671	173	520	201	560	195	537	195
Louisiana	449	48	479	41	493	43	536	46	564	59
Maine	176	32	200	29	207	31	205	39	214	55
Maryland	632	228	579	186	549	170	570	225	537	255
Massachusetts	1,443	411	1,363	446	1,500	638	1,235	439	1,088	457
Michigan	1,267	369	1,357	455	1,337	440	1,296	446	1,462	600
Minnesota	742	160	699	192	655	189	612	197	523	201
Mississippi	420	83	427	71	441	82	379	70	279	71
Missouri	751	273	734	302	658	339	772	420	731	398
Montana	177	11	175	0	177	3	145	1	144	5
Nebraska	496	232	437	277	368	216	457	272	352	160
Nevada	66	28	68	25	65	32	72	37	72	38
New Hampshire	190	48	147	23	132	14	138	41	119	33
New Jersey	684	297	657	238	696	283	677	295	615	268
New Mexico	101	34	133	47	118	45	90	19	77	27
New York	3,348	1,182	3,130	1,148	3,122	1,163	2,864	1,077	2,759	1,291
North Carolina	800	137	824	198	800	242	726	227	627	187
North Dakota	185	22	212	20	251	53	252	73	261	59
Ohio	1,666	459	1,861	546	1,856	530	1,661	463	1,572	566
Oklahoma	364	58	396	57	378	64	350	96	417	90
Oregon	283	70	357	91	377	89	318	70	288	67
Pennsylvania	2,565	690	2,624	667	2,555	742	2,486	809	2,247	877
Rhode Island	329	67	337	58	317	103	235	42	189	35
South Carolina	353	89	536	173	441	87	399	90	373	94
South Dakota	193	19	190	15	189	32	183	31	159	47
Tennessee	667	178	711	174	617	168	662	247	507	171
Texas	1,903	463	1,754	461	1,700	468	1,576	471	1,538	488
Utah	240	93	252	84	255	63	274	112	257	111
Vermont	120	45	101	29	106	28	85	14	72	26
Virginia	836	242	798	225	757	229	736	260	697	271
Washington	619	123	589	128	596	143	482	116	447	114
West Virginia	284	113	302	139	316	171	298	155	265	148
Wisconsin	1,125	227	1,068	120	1,228	283	1,035	307	888	340
Wyoming	47	11	69	17	49	10	41	18	50	15
American Samoa	0	0	0	0	0	0	—	—	—	—
Guam	2	2	0	0	1	1	—	—	16	16
Puerto Rico	883	198	930	305	769	216	710	138	811	185
Virgin Islands	0	0	10	6	9	2	9	—	4	1

¹ National and regional totals exclude American Samoa, Guam, Puerto Rico, and the Virgin Islands.

² Totals include RNs in basic programs, RNs in BRN programs, and basic BSN students.



**PART TWO
LEADERS IN THE MAKING:
GRADUATE EDUCATION IN NURSING**



Section 2-1
Executive Summary



EXECUTIVE SUMMARY

DOCTORAL ENROLLMENTS REMAIN ROBUST; ENROLLMENTS AND GRADUATIONS FROM MASTER'S NURSING PROGRAMS DROP

Despite continued gains in the number of programs offering master's degrees in nursing (Figure 1), enrollments in master's programs in nursing decreased by a modest 1.4 percent (Figure 2). This sudden, albeit nominal, downward trend follows on the heels of substantial increases in enrollments at both the RN and LPN/LVN levels (*Nursing DataSource 1990: Volumes I & IV*).

Moreover, after two decades of virtually consistent increases, graduations from master's programs deteriorated for the second year and now stand at 5,777. This figure represents a 4.2 percent decrease from the 1986 peak of 6,029 (Figures 3 & 4).

Doctoral programs, on the other hand, remain strong with 5 percent increases in enrollments and an impressive 14 percent surge in the number of doctorate degrees conferred in 1989 (Figure 5).

Projected Demand for RNs with Graduate Degrees will Exceed Supply

Current interest in the nursing shortage has focused predominantly upon the supply and demand for RNs prepared at the entry level. However, the paucity of master's and doctorally prepared nurses has been identified as a long-term dilemma by employers, nursing leadership, and the Federal Government.

In the recent *Seventh Report to Congress*, the Division of Nursing of the Department of Health and Human Services projects a serious shortfall of advanced degree RNs by the year 2000. At that time, it is estimated that only 185,170 RNs with graduate credentials will be available to fill the projected demand for 391,760 advanced degree RNs (Figure 6).

A range of economic, educational, and professional trends are fueling the demand for RNs with advanced degrees. The proven cost-effectiveness and popularity of nurse practitioners, midwives, and nurse anesthetists has stimulated the market for these health care professionals in hospitals, health maintenance organizations, nurse-managed care centers, as well as many other health care delivery settings.

Moreover, the *Secretary's Commission on Nursing* concluded that RNs are typically expected to delegate and oversee a variety of paraprofessionals and other health care workers often without benefit of proper preparation. The increased attention currently being focused upon the proper utilization of RNs will, no doubt, require that many more receive advanced education for their administrative and managerial roles.

Finally, trends in higher education indicate that master's preparation is increasingly the *minimum* requirement for teaching in institutes of higher learning. Now that basic RN educational programs are primarily located in junior and senior colleges and universities, nursing educators are required to obtain master's and doctoral degrees to advance in their academic careers.

In short, the recent stagnation in enrollments and graduations from master's programs may have serious implications for both education and delivery in view of the contemporary needs and the projected shortage of RNs with advanced education.

NOTE: All the data presented in Figures 1 to 17 originate from NLN's Annual Survey of Nursing Educational Programs unless otherwise indicated.

Contemporary Trends in Master's Nursing Education

The current 212 master's programs are well distributed throughout the United States with the greatest proportion in the South (30 percent). The Midwest and North Atlantic contain almost identical numbers of MSN programs with about 27 percent each and the West claims 17 percent of the nation's master's programs in nursing (Figure 7).

Historically, there has been consistent growth in the number and size of master's programs nationwide. Two decades ago, the 70 extant programs each had an average of 68 students enrolled. Today, 212 master's programs are preparing 22,587 students at the master's level—an average of 106 students per program (Figures 1 & 2).

The remarkable growth in master's enrollments can be partially explained by the dramatic shift from full-time to part-time students. Back in 1970, almost three-quarters of the master's students were full-timers; by 1989 a total reversal had occurred when the proportion of full-timers dropped to just 25 percent (Figure 8). At the present time, three of the four regions report that an overwhelming majority of their students are part-timers. Only the West continues to report a majority of full-time enrollments (Figure 9).

The shift from full- to part-time graduate studies is not unique to nursing. This trend, however, gives cause for concern in view of the projected requirements for RNs with advanced degrees. In order to increase the turnaround for new graduates, innovative master's (and doctoral) programs that provide students flexible course offerings, such as summer sessions and weekend courses, should be encouraged and supported through funds and grants from foundations and the Federal Government.

Advanced Clinical Practice Remains Most Popular Functional Area

The bulk of both part-time and full-time students are preparing for advanced clinical practice. It is noteworthy that a greater percentage of part-timers are preparing in the area of administration/management and nursing education continues to attract the smallest group of master's students (Figures 10 & 11).

Medical/surgical as a major focus of study maintains its draw on master's students; however, maternal/child has recently increased its standing with impressive increases in the number of both part-time and full-time students preparing for this specialty (Figures 12 & 13). Enrollments in other specialty areas—psychiatric/mental health, community health, and gerontology—have remained essentially stable over the past year.

Similar trends exist among the graduates of master's programs in nursing. Almost two-thirds of the recent graduates had prepared for advanced clinical practice, 22 percent studied administration/management and 13 percent, teaching (Figures 4 & 14). It is important to note that the recent increases in administration/management have come at the expense of slight losses in the areas of teaching and advanced clinical practice.

Master's Level Nurse Practitioner Programs Grow

Great diversity currently exists in regard to the educational preparation of those RNs practicing as "nurse practitioners." According to the *1988 RN Sample Survey*, over 70 percent of those RNs holding the job title "nurse practitioner" received preparation through certificate programs rather than master's education.

A growing trend, however, has been the preparation of nurse practitioners at the master's level and in 1989 approximately 40 percent of the master's programs offered formal nurse practitioner programs. Family health heads the list of specializations with gerontology and pediatrics following in second and third place (Figure 15).

Clinical practice, which includes nurse practitioner preparation, has historically been the most popular functional area. There has been, however, a dramatic and significant shift between the other two primary areas, i.e., teaching and administration/management. A decade ago, over 20 percent of master's graduates had studied education and less than 10 percent were headed for administration/management positions. Today the trend has essentially reversed with almost 22 percent of the contemporary cohort preparing for administration/management and 13 percent preparing for education.

Doctoral Programs in Nursing

Remarkable growth characterizes the history of doctoral education. In 1989, 47 doctoral programs were admitting students and 2,417 RNs were enrolled (Figures 16 & 5). Over the past decade there has been a 42.5 percent increase in doctoral enrollments and an outstanding 77 percent jump in graduations.

Similar to enrollment trends among master's students, there has been a recent preference for part-time enrollments in doctoral programs. In 1980, a majority of doctoral students were studying full-time and by 1989 the pattern had reversed itself (Figure 17). In view of the length of time necessary to complete doctoral preparation, the trend toward part-time enrollments may be significantly handicapping the number of graduates per year.

Contemporary doctoral students are preparing primarily for education and research, while a smaller group is planning to pursue careers in clinical practice.

Summary

While media attention has focused upon the recent shortage of registered nurses prepared at the basic level, leaders in nursing and health care have long recognized the need for increased numbers of RNs prepared at the graduate level. Employer and student demand for graduate preparation in administration/management, advanced clinical preparation, and research and education have fueled the growth in graduate nursing programs. Increases in educational programs ultimately have an impact on supply; however, all indications point to continued demand and shortfall for RNs with advanced degrees.

Peri Rosenfeld, PhD
Vice President
Division of Research

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Section 2-2
Graphs

Master's Degree Programs in Nursing in the U.S.: 20-Year Trend

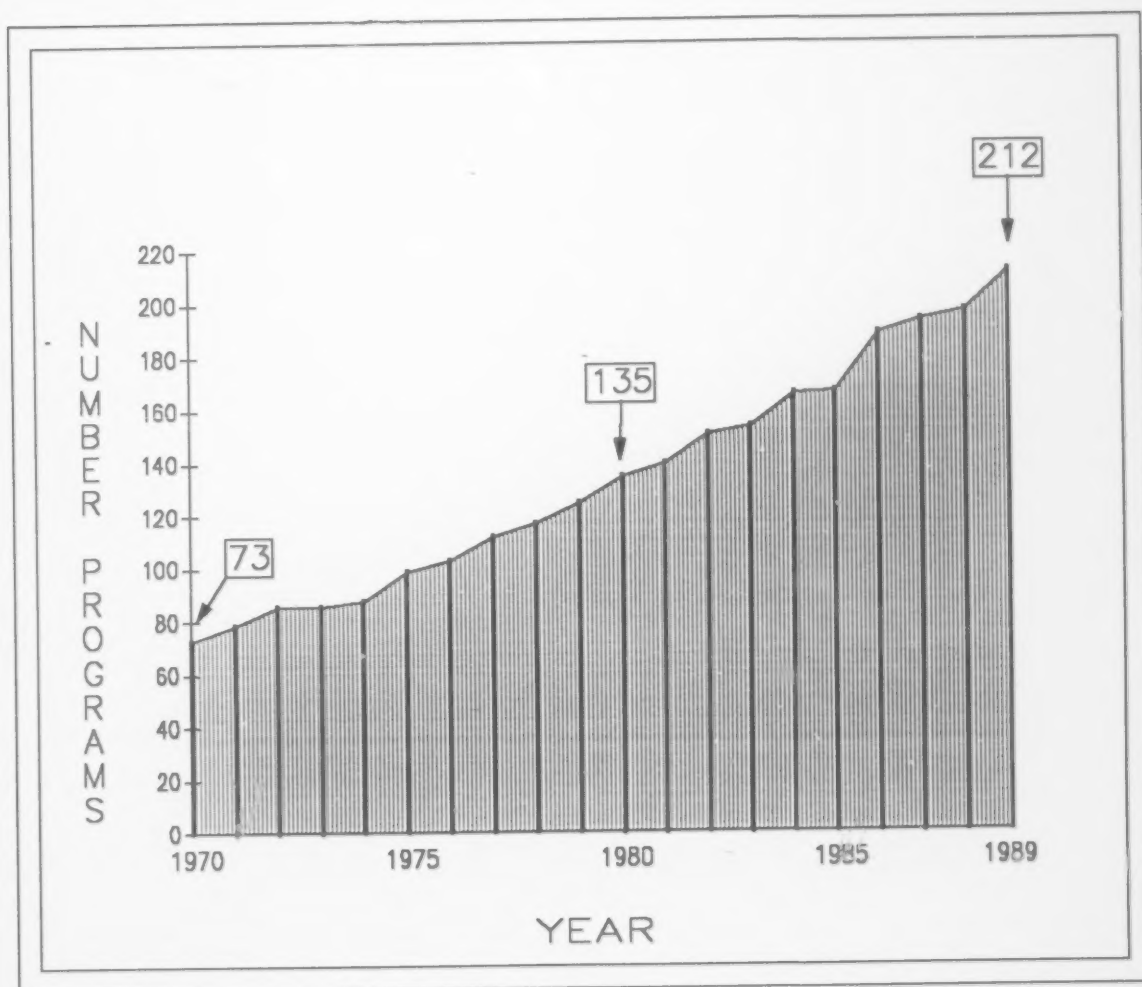


Figure 1. Master's Degree Programs in Nursing in the U.S.: 20-Year Trend

There has been a steady increase in the number of master's programs over the past 20 years. The current figure, 212, represents a 7.6 percent increase over the 197 programs in operation last year.

Total Enrollments in Master's Programs in Nursing: 10-Year Trend

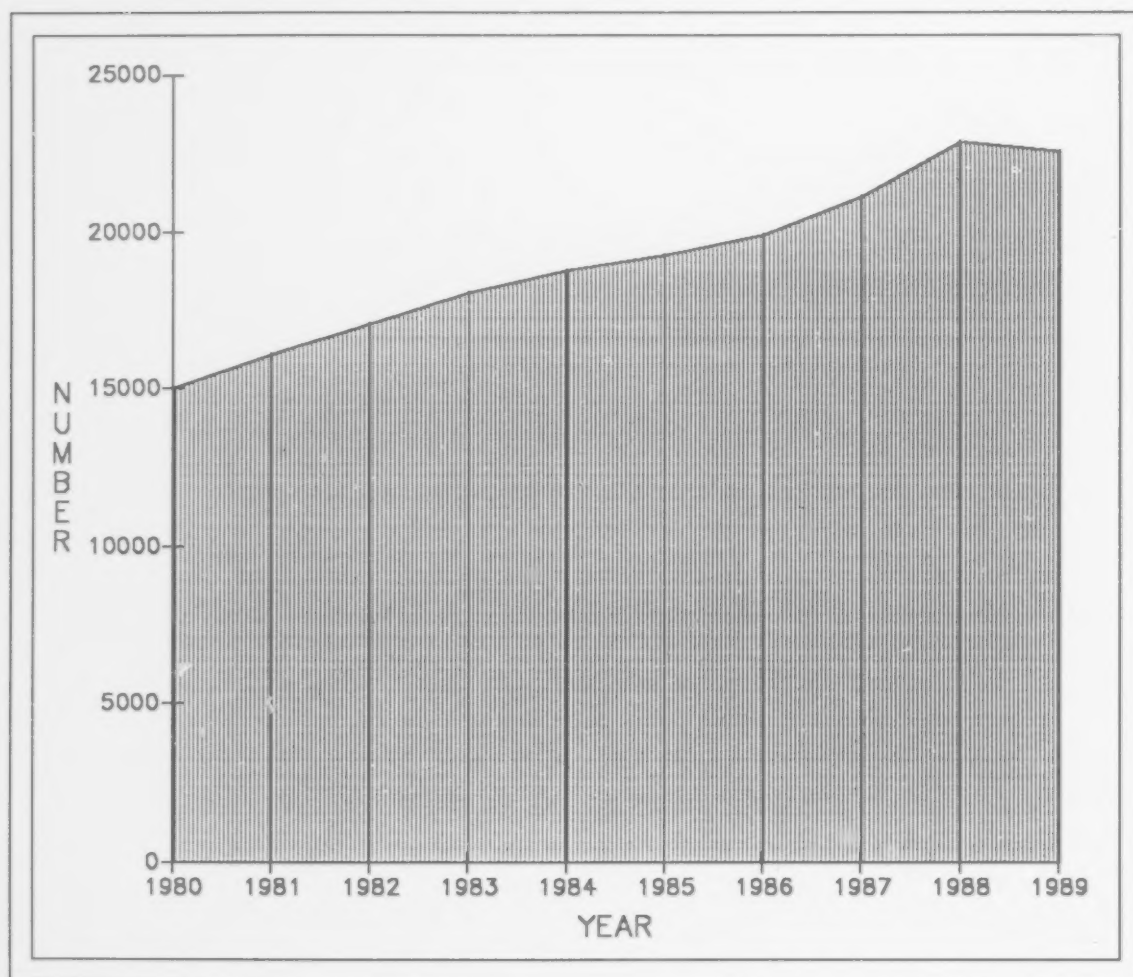


Figure 2. Total Enrollments in Master's Programs in Nursing: 10-Year Trend

Total enrollments in the nation's master's programs in nursing stood at 22,587 in 1989. This 1.4 percent decrease over last year's figure of 22,908 represents the first dip in the number of students enrolled in master's programs. Most of these losses can be explained by a 15 percent drop in enrollments in the North Atlantic.

Graduations from Master's Programs in Nursing in the U.S.: 20-Year Trend

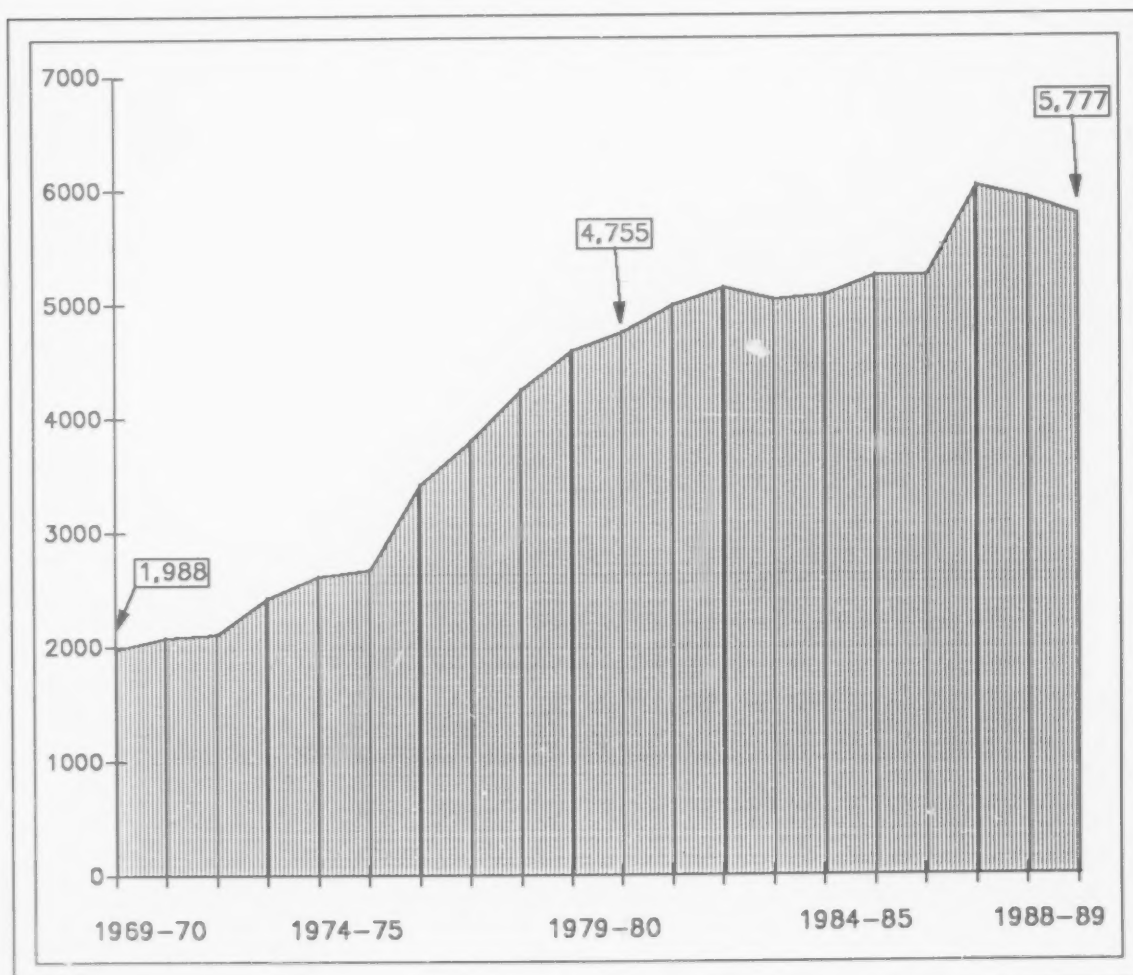


Figure 3. Graduations from Master's Programs in Nursing in the U.S.: 20-Year Trend

The number of new master's graduates fell 2.6 percent to 5,777 in 1989. This is the second year of moderate decreases in the number of graduates from the nation's master's programs. All regions, except the South, reported some deterioration in their graduation figures. Graduations peaked in 1986 when the number stood at 6,029.

Graduations from Master's Programs in Nursing by Functional Area

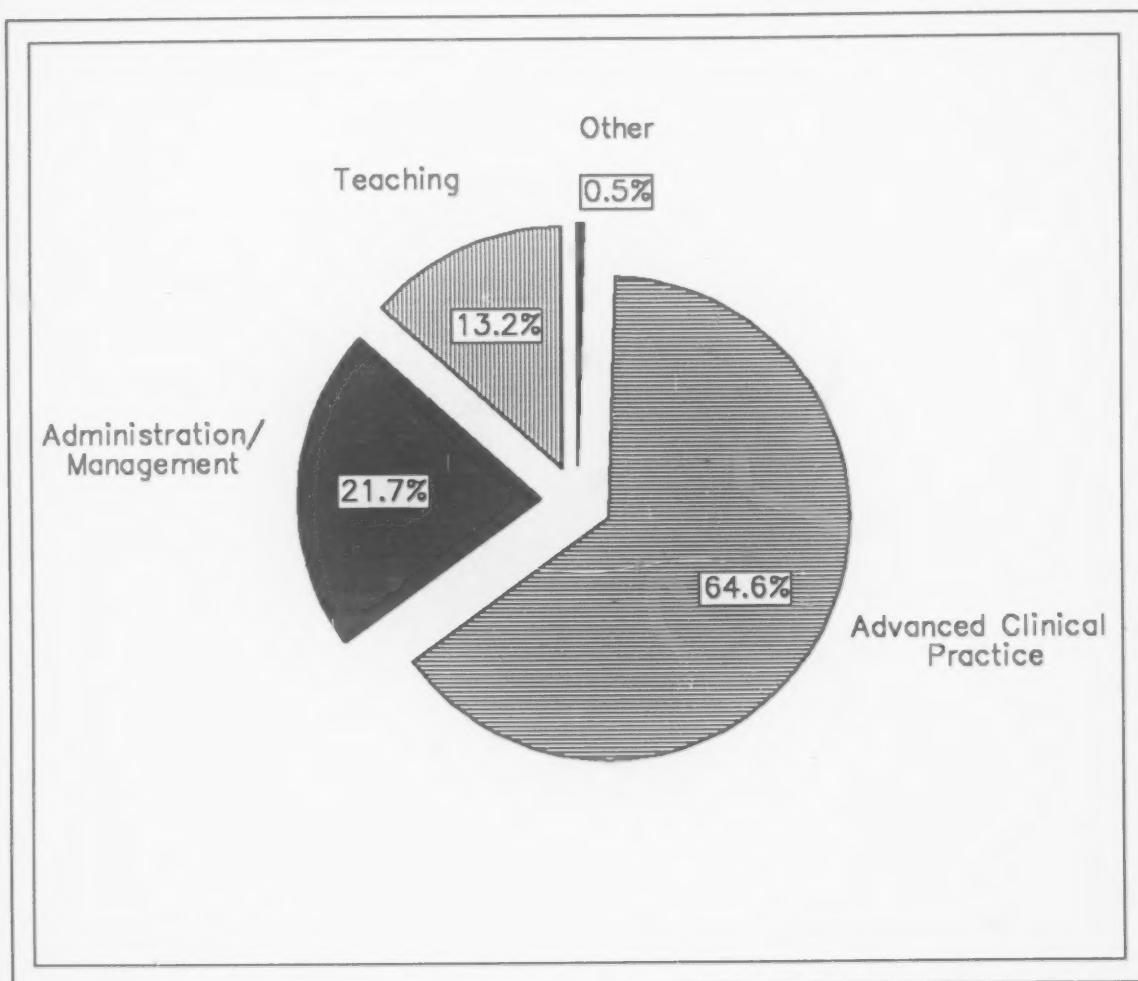


Figure 4. Graduations from Master's Programs in Nursing by Functional Area

Almost two-thirds of the graduates had prepared for advanced clinical practice, 22 percent studied administration/management, and 13 percent plan to pursue teaching. The trend suggests continued growth in administration/management and stability in the other areas.

Enrollments and Graduations from Doctoral Programs in Nursing: 10-Year Trend

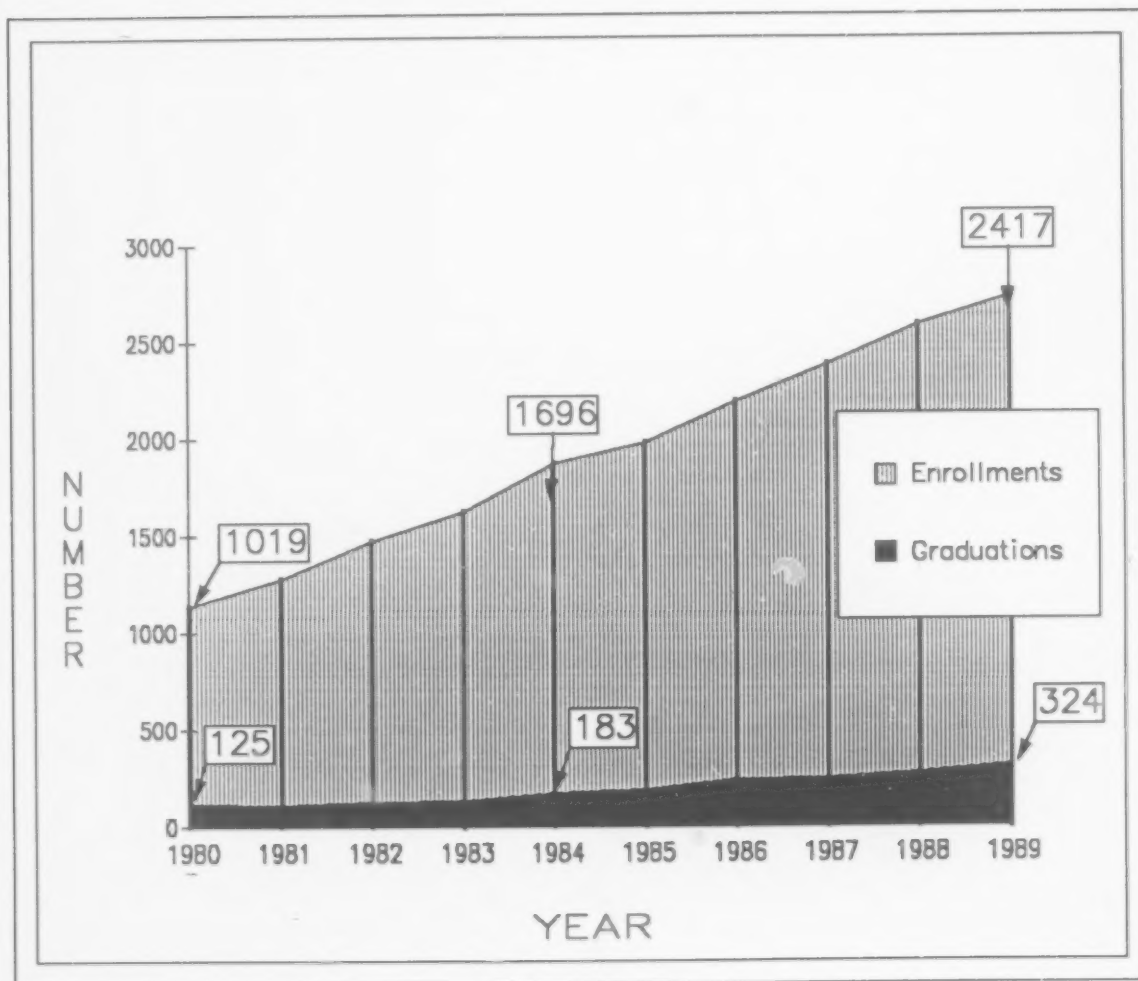


Figure 5. Enrollments and Graduations from Doctoral Programs in Nursing: 10-Year Trend

Currently, there are 2,417 students enrolled in the nation's 47 doctoral programs. This figure represents an almost 5 percent increase over the 1988 figure. Approximately 60 percent are part-timers.

Concomitantly, 324 doctoral degrees were conferred in 1989 representing an impressive 14 percent jump over last year's figure of 284. This is the first year that graduations topped the 300 mark.

**Projected Supply and Demand
for RNs Prepared at the Master's/Doctoral Level, 2000**

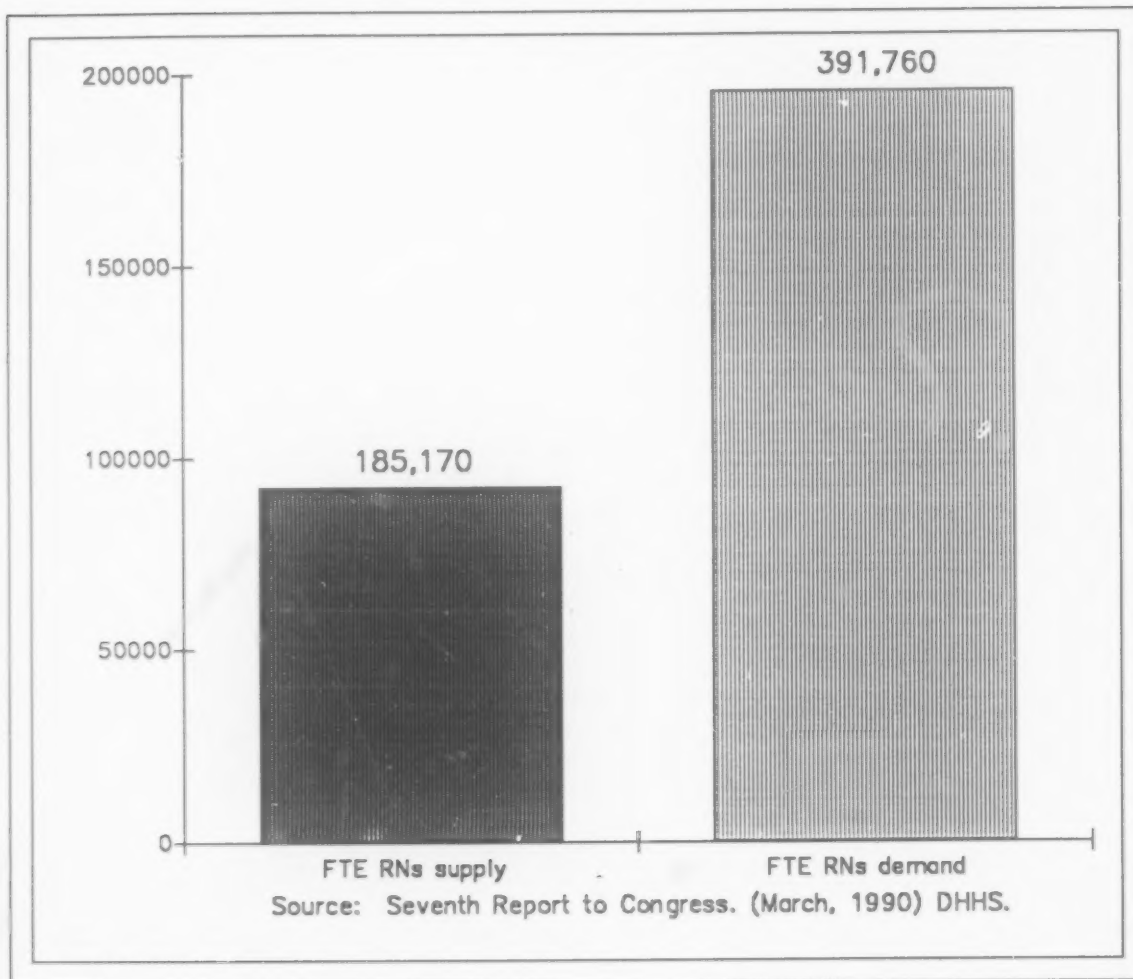


Figure 6. Projected Supply and Demand for RNs Prepared at the Master's/Doctoral Level, 2000

According to projections made by the Federal Government, a shortfall of over 200,000 master's and doctorally prepared RNs will exist by the year 2000. In view of the slow growth in the number of graduates from the nation's master's and doctoral programs, there is little documentation to suggest that the projected gap will be forestalled.

Note: Full-time equivalents (FTEs) are nurses working full-time plus one-half of nurses working part-time.

Regional Distribution of Master's Programs in Nursing

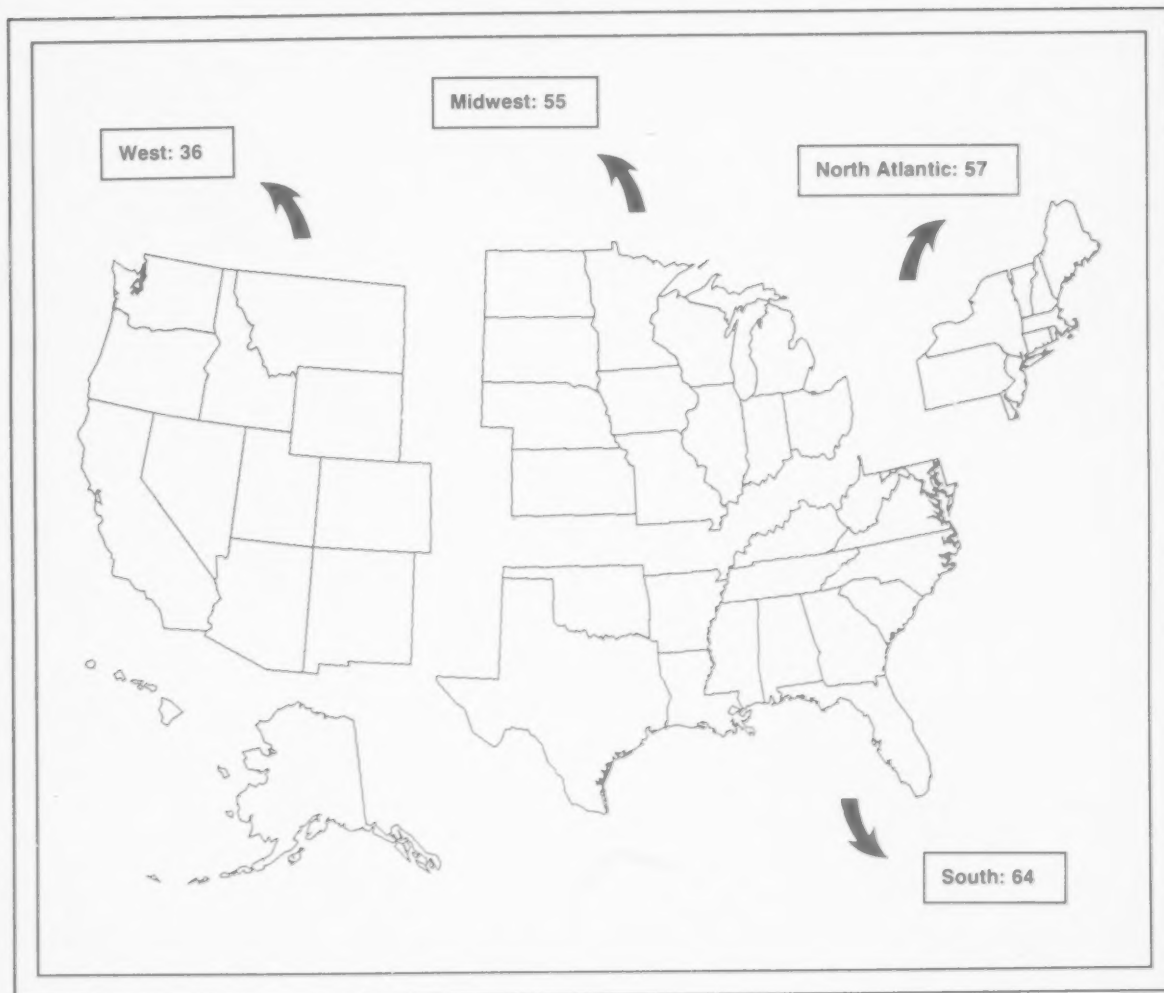


Figure 7. Regional Distribution of Master's Programs in Nursing

The largest proportion of master's programs are located in the South. The West, on the other hand, contains the fewest. Approximately the same number are situated in the Midwest and North Atlantic regions.

Full-Time and Part-Time Enrollments in Master's Programs in Nursing: 10-Year Trend

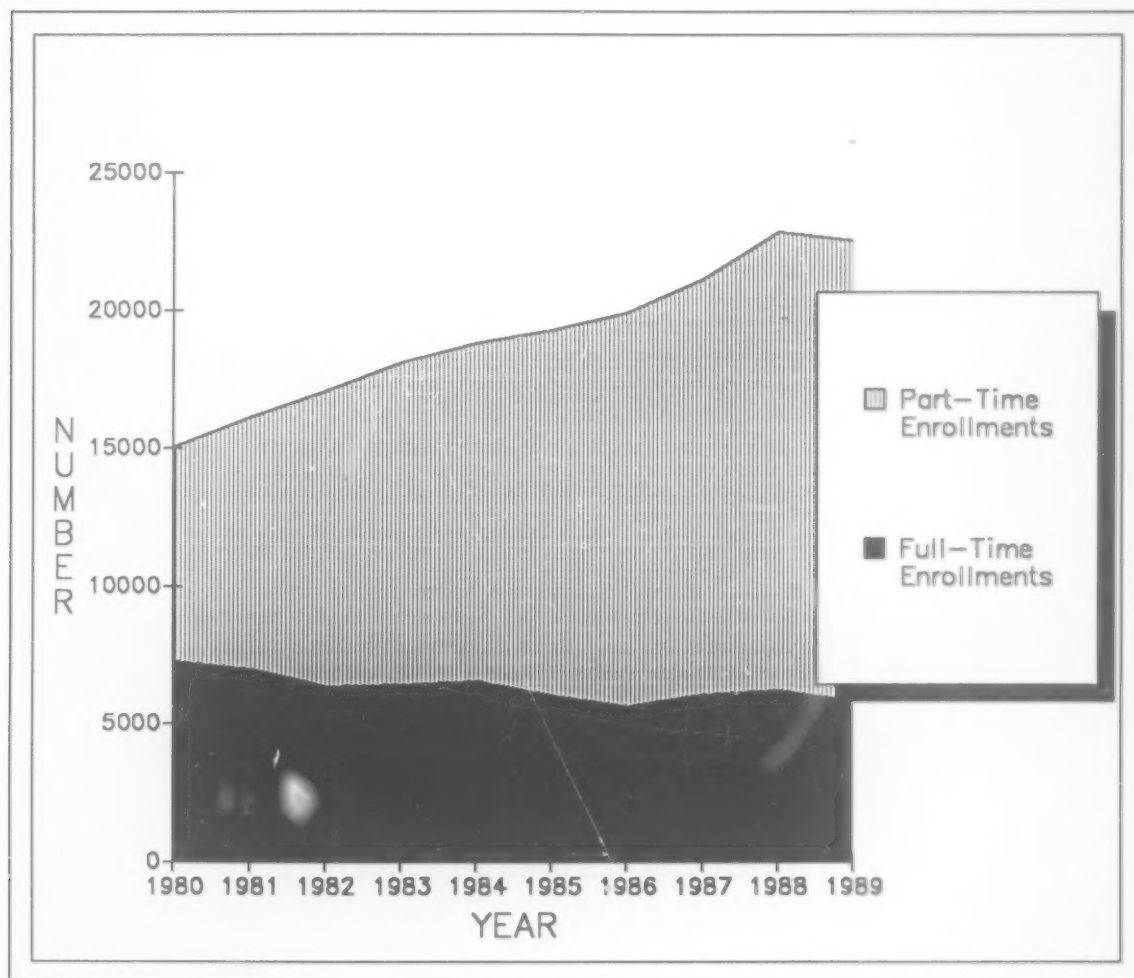


Figure 8. Full-Time and Part-Time Enrollments in Master's Programs in Nursing: 10-Year Trend

In 1980 there were almost equal numbers of full- and part-time enrollments in master's programs in nursing. By 1989, only 26 percent of all master's students were enrolled full-time. The trend toward part-time attendance implies that, on average, it takes longer for the contemporary cohort of students to complete their master's studies than previous cohorts.

Full-Time and Part-Time Enrollments in Master's Programs in Nursing by Region

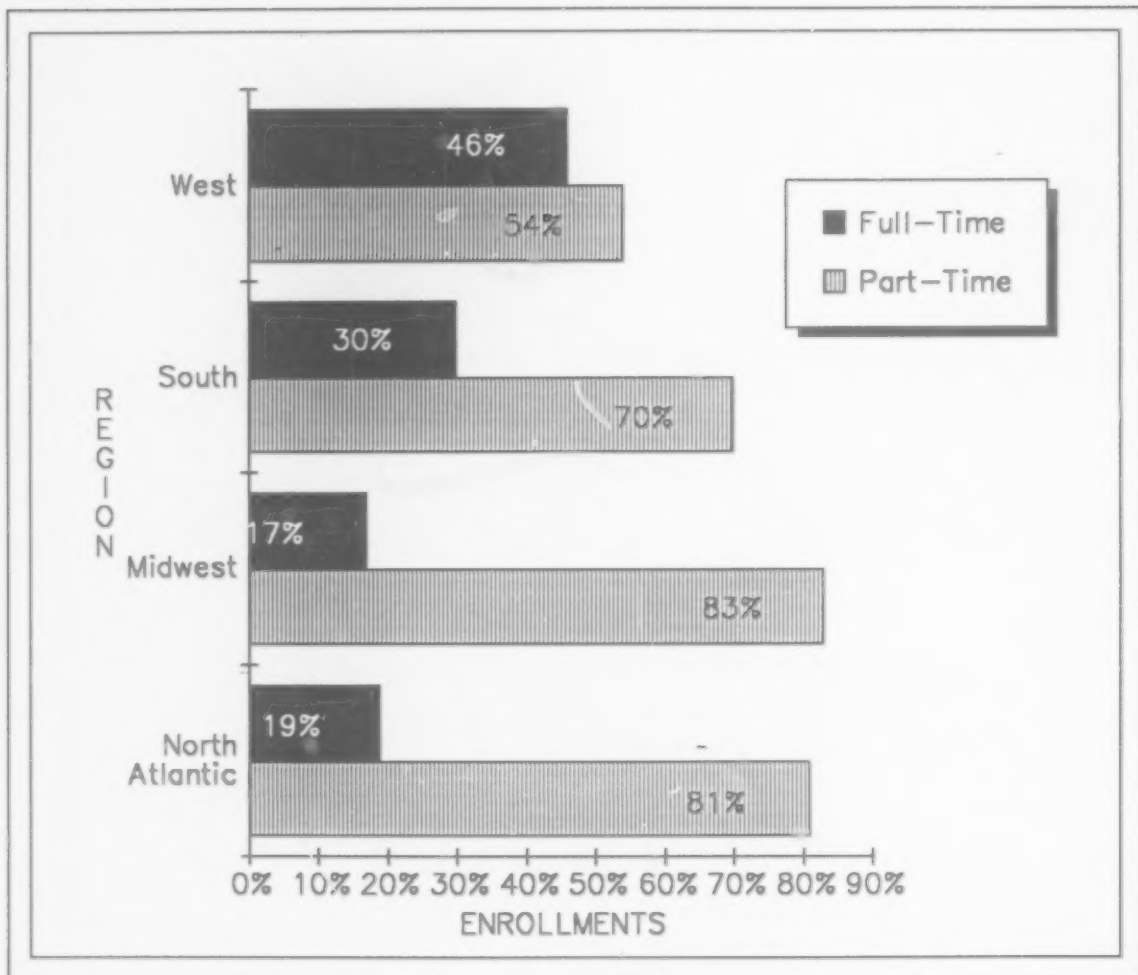


Figure 9. Full-Time and Part-Time Enrollments in Master's Programs in Nursing by Region

Significant regional differences exist relevant to the proportion of full-time to part-time enrollments. The Midwest and North Atlantic regions report the smallest groups of full-timers and the West reports the largest.

**Full-Time Enrollments
in Master's Programs in Nursing by Functional Area**

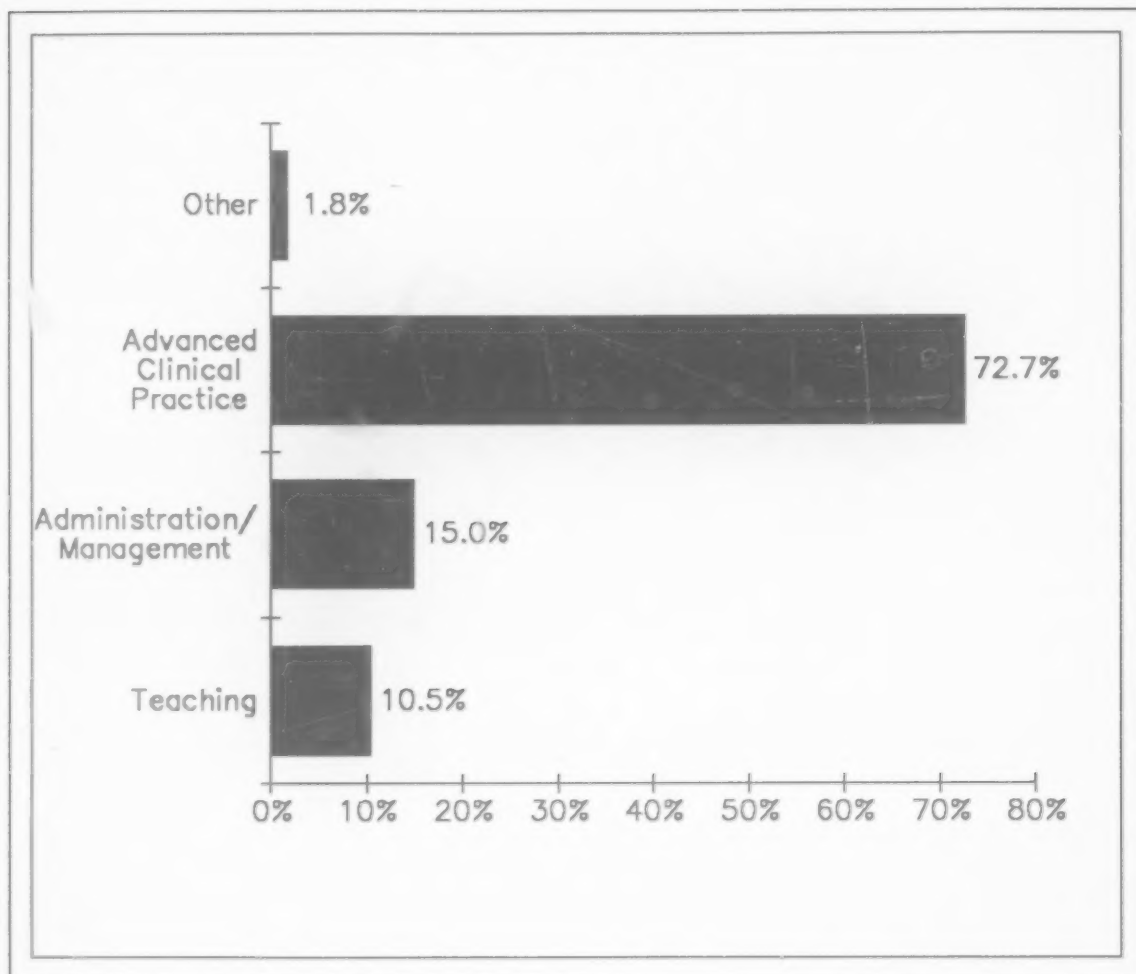


Figure 10. Full-Time Enrollments in Master's Programs in Nursing by Functional Area

An overwhelming majority, 72.7 percent, of the 5,680 full-time students currently enrolled nationwide are preparing for advanced clinical practice. Smaller proportions are studying administration/management and nursing education. These figures have remained relatively stable over the past few years.

Part-Time Enrollments in Master's Programs in Nursing by Functional Area

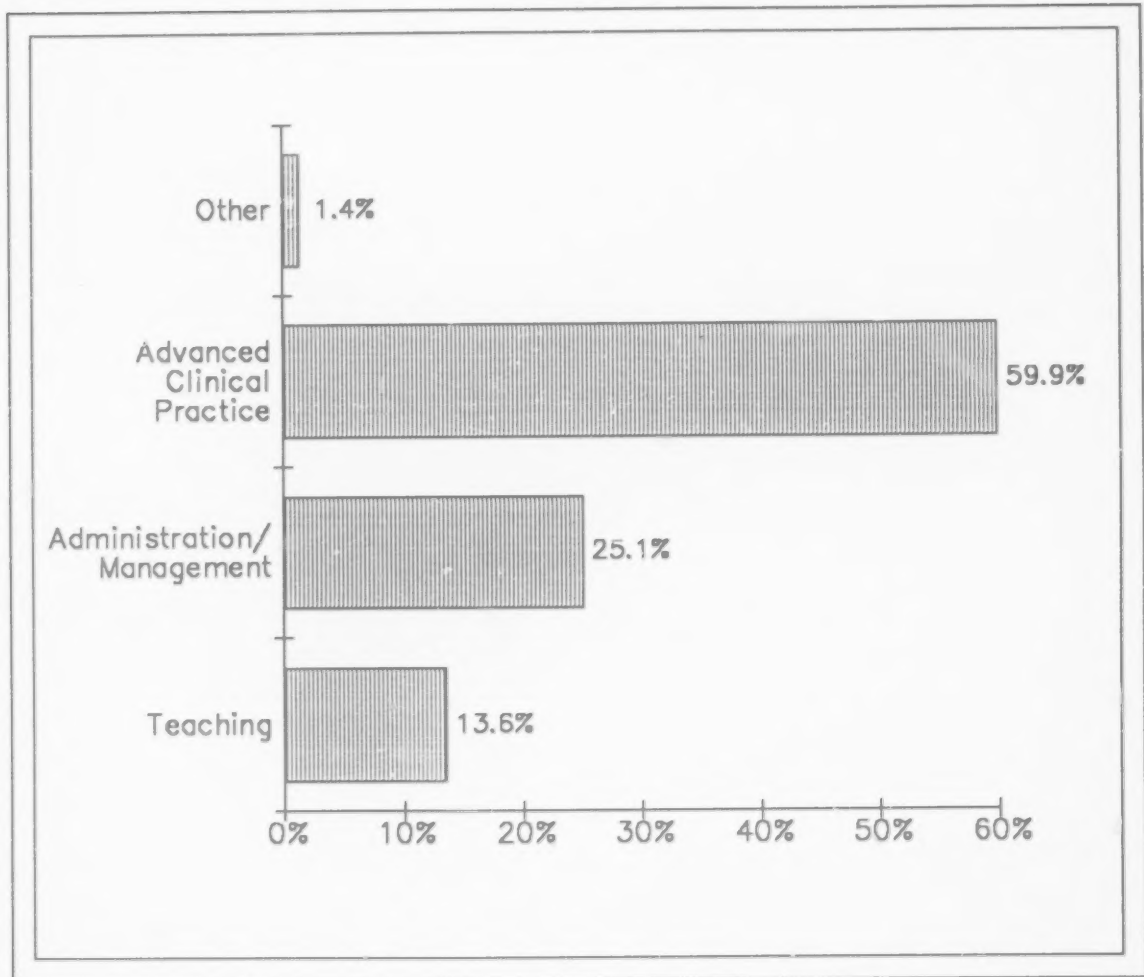


Figure 11. Part-Time Enrollments in Master's Programs in Nursing by Functional Area

A total of 16,727 students are presently enrolled part-time in master's nursing programs and almost 60 percent are preparing for advanced clinical preparation. Over a quarter are studying administration/management and about 14 percent are preparing to teach. While the percentage of part-time students preparing for teaching and advanced clinical practice has remained essentially unchanged since last year, the number and proportion of part-timers preparing for administration/management have grown significantly.

Full-Time Enrollments in Advanced Clinical Practice by Content Area

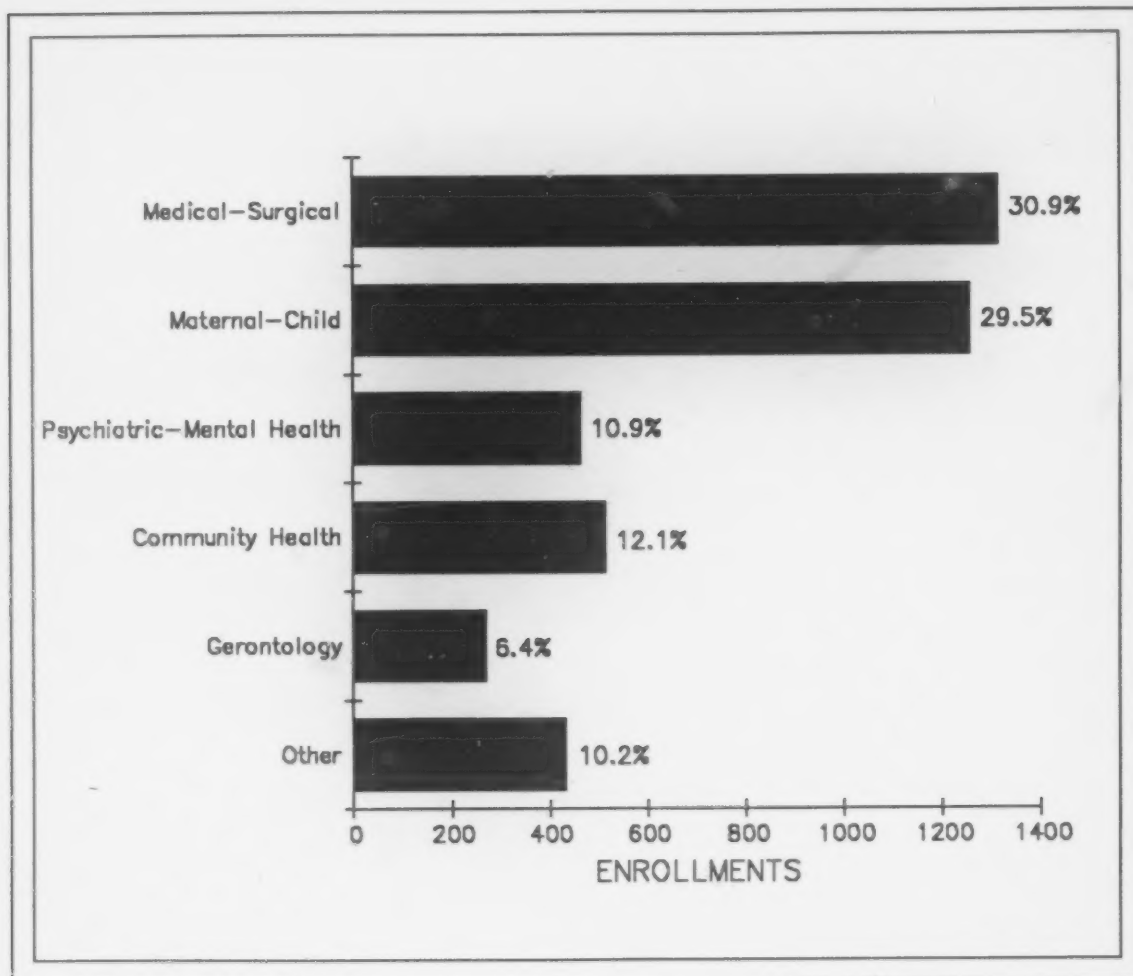


Figure 12. Full-Time Enrollments in Advanced Clinical Practice by Content Area

Almost equal percentages of full-time master's students are specializing in the areas of medical-surgical and maternal-child. The 29.5 percent figure for maternal-child represents a very dramatic increase over last year when the proportion of full-timers preparing for this specialty was 18.7 percent. The proportion preparing for psychiatric-mental health, community health, and gerontology has remained relatively unchanged.

Part-Time Enrollments in Advanced Clinical Practice by Content Area

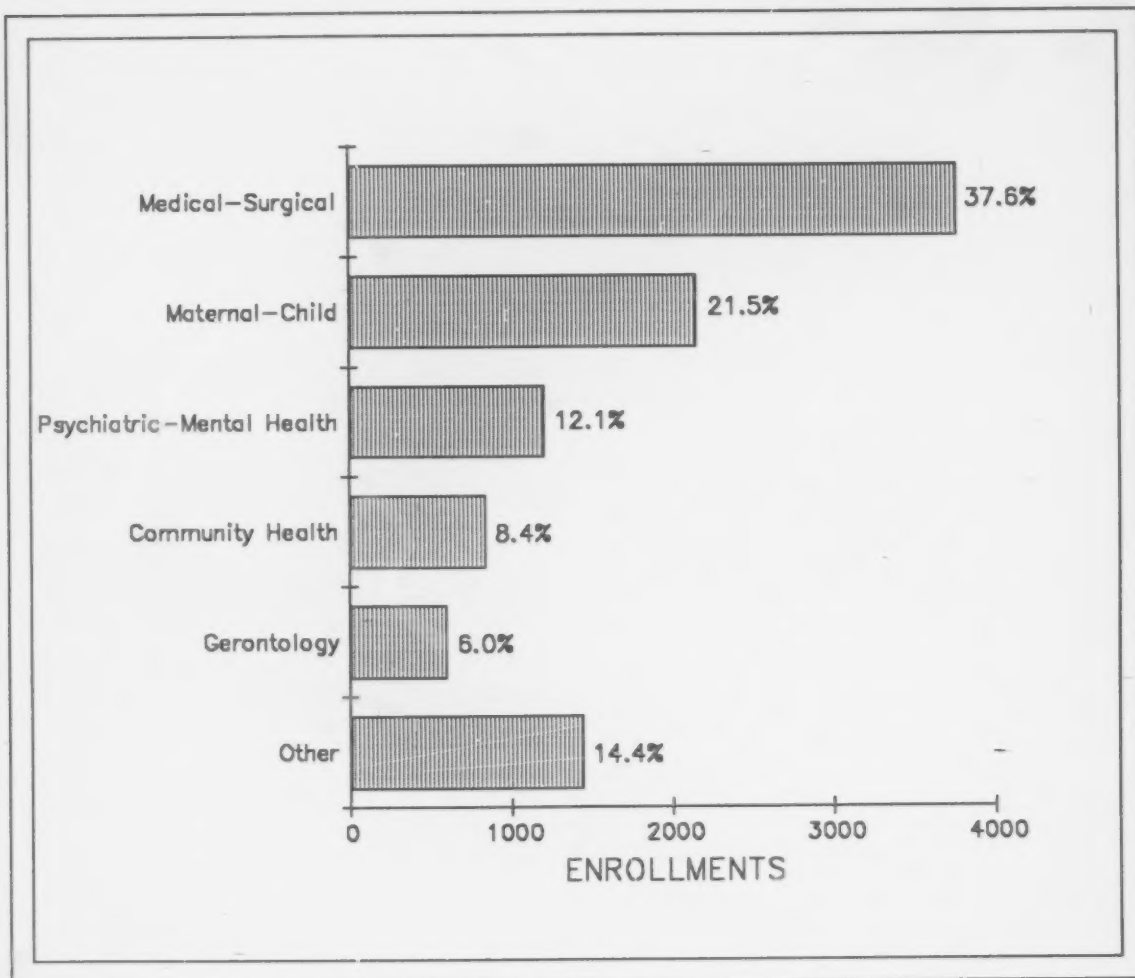


Figure 13. Part-Time Enrollments in Advanced Clinical Practice by Content Area

Medical-surgical remains the most popular area of specialization for part-timers in master's programs. Over 21 percent of the part-time students are preparing for advanced clinical practice in maternal-child which represents a very significant increase in the number and proportion of individuals in this category. The numbers studying community health, psychiatric-mental health, and gerontology have continued unchanged.

Graduations from Master's Programs in Nursing by Content Area

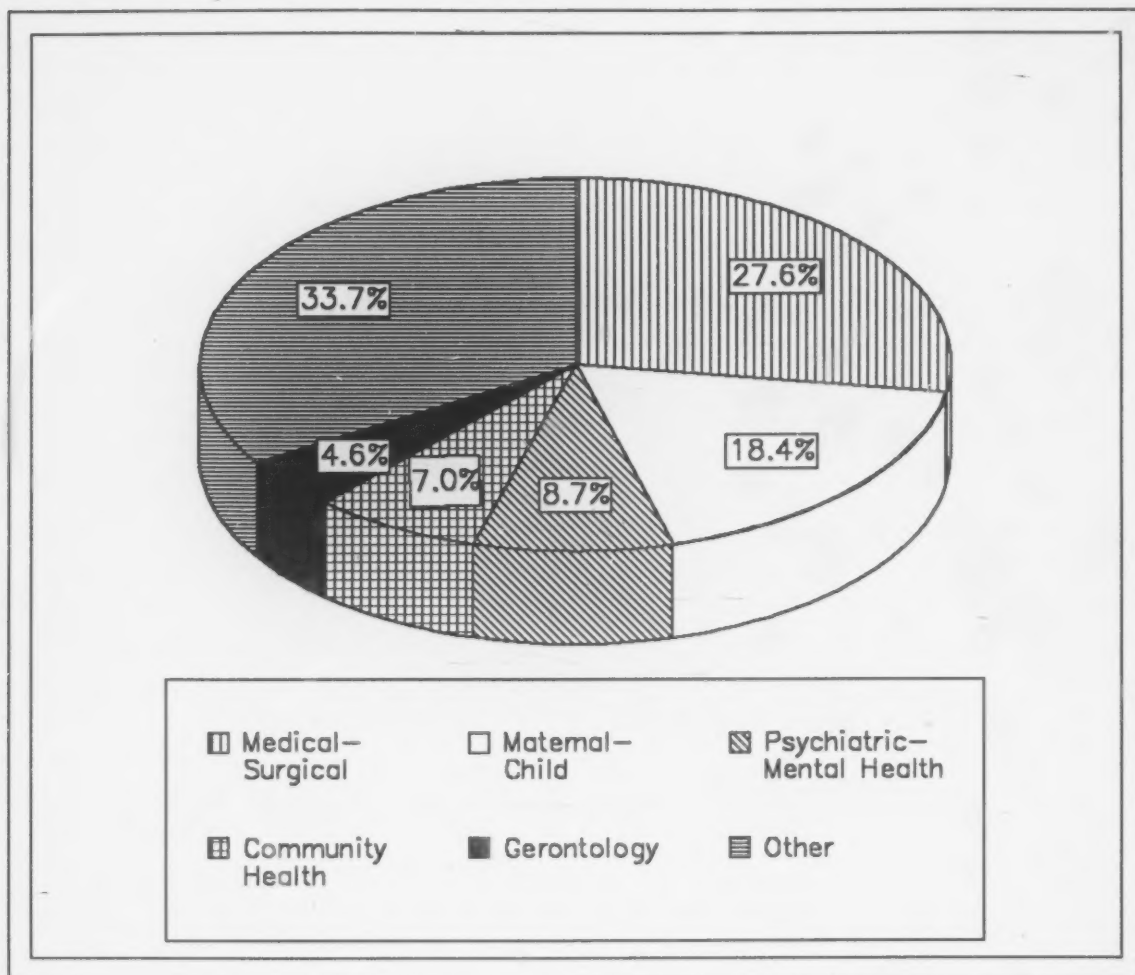


Figure 14. Graduations from Master's Programs in Nursing by Content Area

Medical-surgical continues to predominate as the area in which graduates specialize. Some decreases were reported in the areas of psychiatric-mental health, community health and, to a lesser extent, gerontology.

Nurse Practitioner Programs at the Master's Level

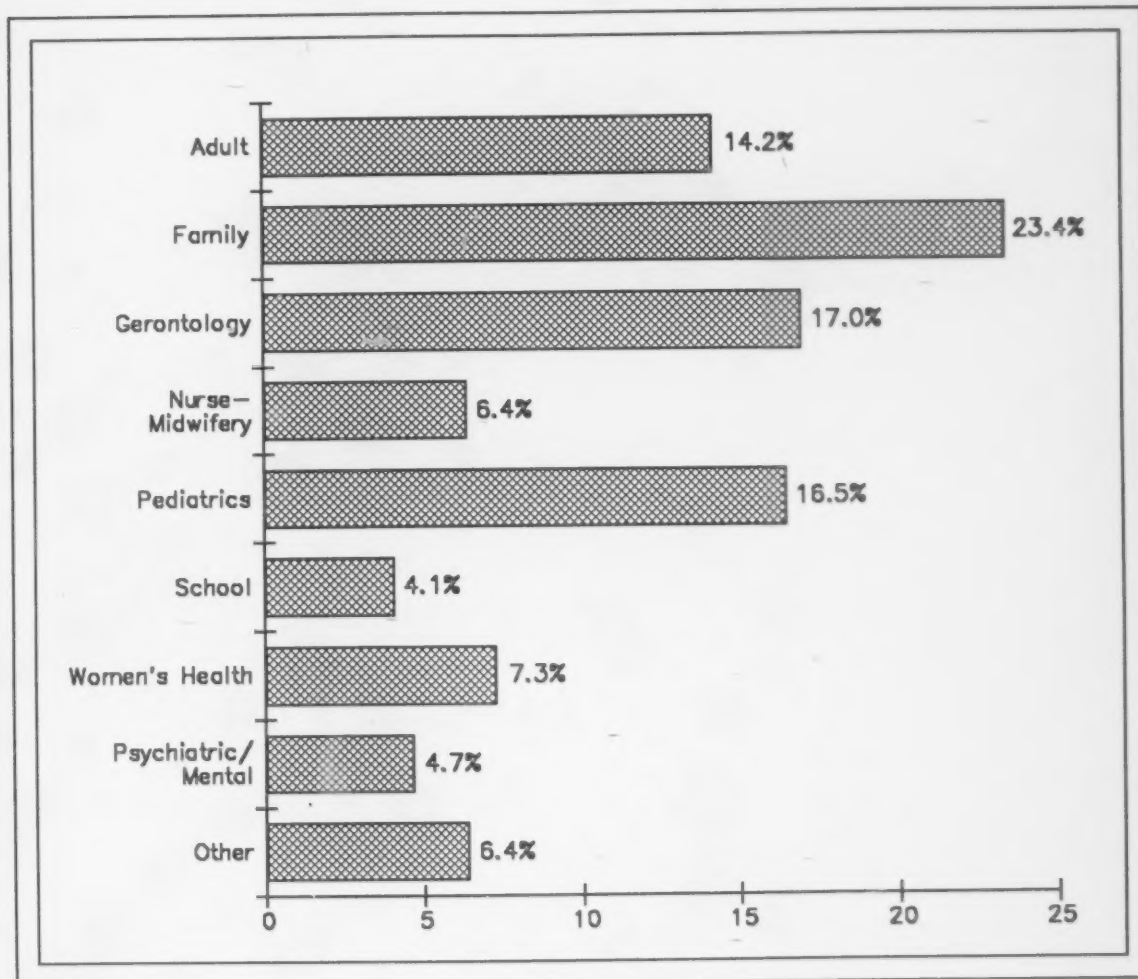


Figure 15. Nurse Practitioner Programs at the Master's Level

Eighty-three of the 212 master's programs offer formal nurse practitioner preparation. Family nurse practitioner programs head the list of specializations with 23 percent and gerontology and pediatric follow with approximately 17 percent each.

Geographic Distribution of Doctoral Programs in Nursing

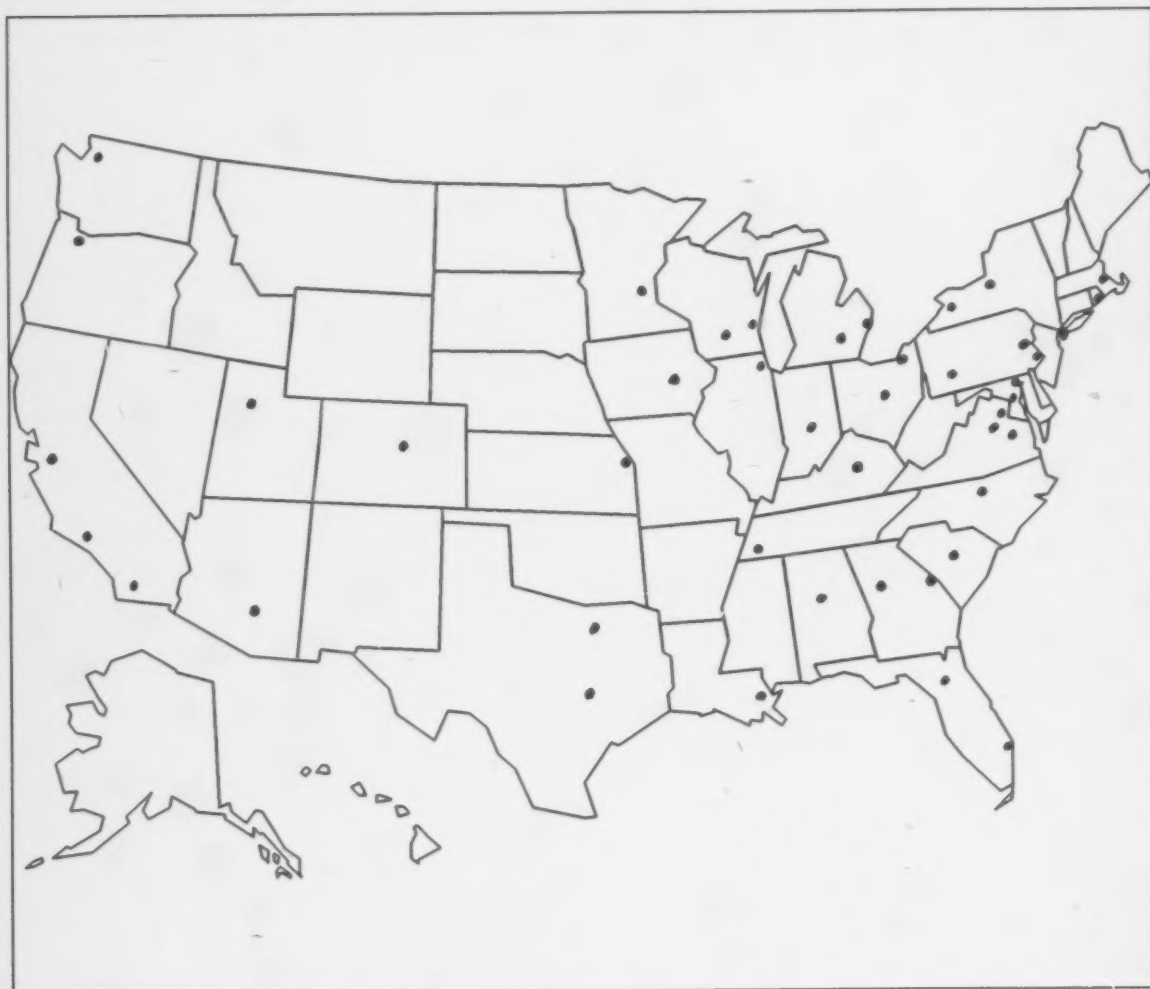


Figure 16. Geographic Distribution of Doctoral Programs in Nursing

The nation's 47 doctoral programs are located in 30 states and the District of Columbia. Conversely, 21 states do not currently offer doctoral preparation. The largest number of doctoral programs in nursing are situated in New York (5), California (3), Pennsylvania (3), and Virginia (3).

Note: Distribution points may represent more than one program within that state.

Part-Time and Full-Time Enrollments in Doctoral Nursing Programs: 10-Year Trend

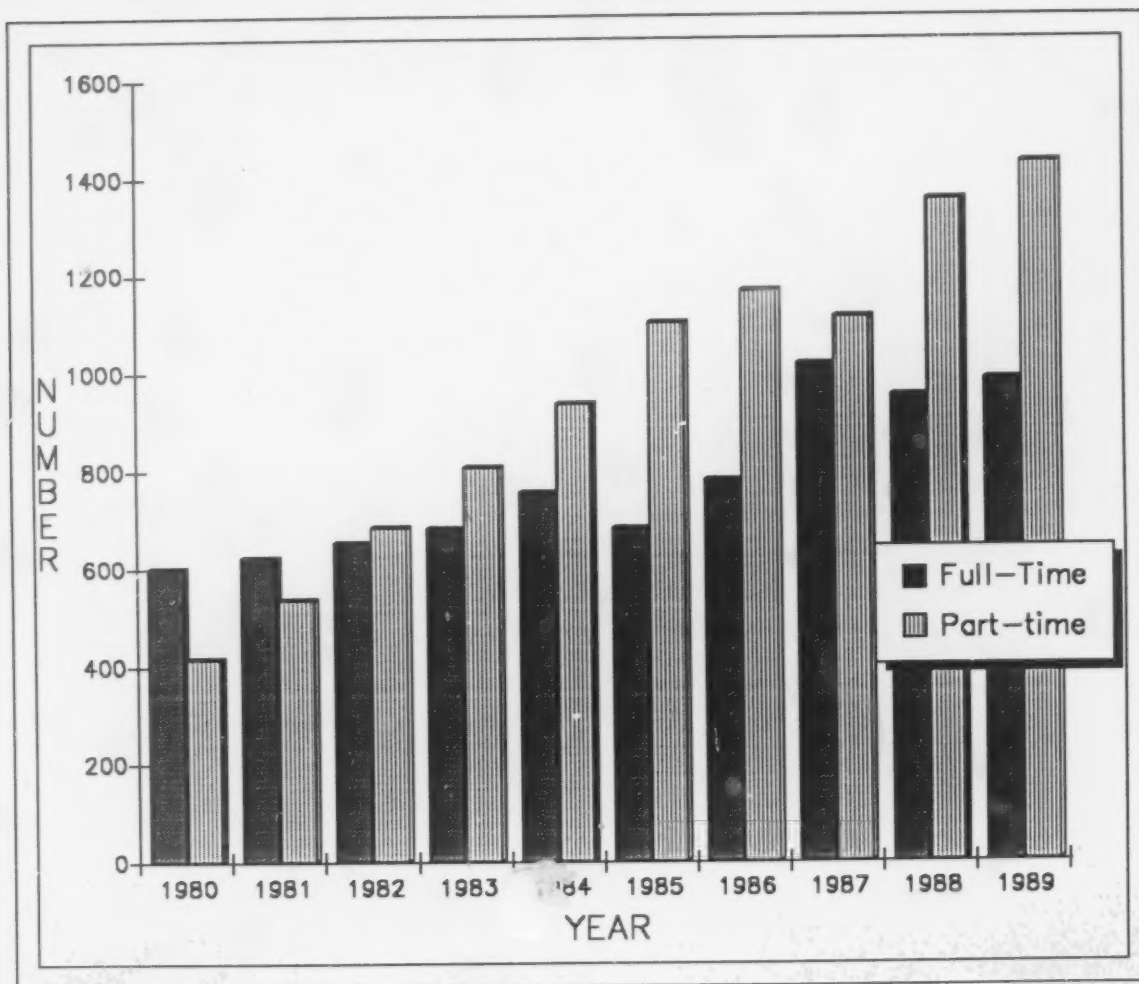


Figure 17. Part-Time and Full-Time Enrollments in Doctoral Nursing Programs: 10-Year Trend

In 1980, the majority of the then 1,019 doctoral students were attending full-time. By 1982, there were almost equal numbers of full- and part-time students. From that time on, the proportion of part-timers has continually exceeded the number of full-timers. In 1989, approximately 1,400 doctoral students were enrolled part-time, and almost 1,000 were attending on a full-time basis.



Section 2-3
Numeric Tables



Table 1
MASTER'S PROGRAMS IN NURSING, BY NLN REGION AND STATE: 1980 TO 1989¹

NLN REGION AND STATE	NUMBER OF PROGRAMS									
	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989
United States	135	140	151	154	166	167	109	194	197	212
North Atlantic	32	34	37	37	42	42	48	52	53	57
Midwest	34	37	40	40	44	44	52	51	51	55
South	46	46	50	51	54	54	56	56	57	64
West	23	23	24	26	26	27	33	35	36	36
Alabama	2	2	3	3	4	4	4	4	4	4
Alaska	0	1	1	1	1	1	1	1	1	1
Arizona	2	2	2	2	2	2	2	2	2	2
Arkansas	2	2	2	2	2	2	2	2	2	2
California	8	8	9	9	11	11	16	17	17	17
Colorado	2	2	2	2	1	1	2	2	3	2
Connecticut	2	2	2	2	3	3	5	5	5	5
Delaware	1	1	1	1	1	1	1	1	1	1
District of Columbia	3	3	3	3	3	3	3	3	3	3
Florida	3	3	3	3	4	4	5	5	5	5
Georgia	3	3	3	3	4	4	4	4	4	6
Hawaii	1	1	1	1	1	1	1	1	1	1
Idaho	1	1	1	1	1	1	1	1	1	1
Illinois	7	7	7	7	8	8	10	10	10	10
Indiana	3	3	4	4	4	4	6	6	6	7
Iowa	1	1	1	1	1	1	2	2	2	2
Kansas	2	2	2	2	2	2	2	2	2	2
Kentucky	1	1	2	2	3	3	4	4	4	5
Louisiana	3	3	3	3	2	2	2	2	2	3
Maine	0	0	1	1	1	1	1	1	1	1
Maryland	1	1	2	2	2	2	2	2	3	3
Massachusetts	4	4	6	6	6	6	6	7	6	6
Michigan	3	4	5	5	6	6	9	8	8	10
Minnesota	2	2	2	2	3	3	3	3	3	4
Mississippi	3	3	3	3	3	3	3	3	3	3
Missouri	3	3	3	3	3	3	3	3	3	3
Montana	1	1	1	1	1	1	1	1	1	1
Nebraska	1	2	2	2	2	2	2	2	2	2
Nevada	1	1	1	1	1	1	2	2	2	2
New Hampshire	0	0	0	0	0	0	1	1	1	1
New Jersey	2	2	2	2	2	2	2	2	2	2
New Mexico	1	1	1	1	1	1	1	1	1	1
New York	13	13	13	14	15	16	17	18	19	20
North Carolina	5	5	6	6	6	6	6	6	6	7
North Dakota	0	0	1	1	2	2	2	2	2	2
Ohio	7	7	7	7	7	7	7	7	7	7
Oklahoma	2	2	2	2	2	2	2	2	2	3
Oregon	2	2	2	2	2	2	2	2	2	2
Pennsylvania	6	7	7	7	9	9	11	13	14	16
Rhode Island	1	1	1	1	1	1	1	1	1	1
South Carolina	3	3	3	3	3	3	3	3	3	3
South Dakota	1	1	1	1	1	1	1	1	1	1
Tennessee	3	3	3	3	3	3	3	3	3	2
Texas	9	9	9	9	9	9	9	9	9	10
Utah	2	2	2	2	2	2	2	2	2	2
Vermont	0	0	0	0	0	0	0	0	0	1
Virginia	5	5	5	6	6	6	6	6	6	6
Washington	1	1	1	2	2	2	2	2	2	3
West Virginia	1	1	1	1	1	1	1	1	1	2
Wisconsin	4	5	5	5	5	5	5	5	5	5
Wyoming	1	1	1	1	1	1	1	1	1	1
American Samoa	0	0	0	0	0	0	0	0	0	0
Guam	0	0	0	0	0	0	0	0	0	1
Puerto Rico	2	2	2	2	2	2	1	2	2	2
Virgin Islands	0	0	0	0	0	0	0	0	0	0

¹ National and regional totals exclude American Samoa, Guam, Puerto Rico, and the Virgin Islands.

Table 2
ENROLLMENTS OF NURSES IN MASTER'S PROGRAMS AND PERCENTAGE
IN NLN-ACCREDITED PROGRAMS: 1970 TO 1989¹

ACADEMIC YEAR	PROGRAMS		ENROLLMENTS					
			Total		Full Time		Part Time	
	Number	Percent Accredited	Number	Percent Accredited	Number	Percent Accredited	Number	Percent Accredited
1970	73	72.6	4,765	87.5	3,529	92.9	1,236	72.1
1971	79	72.2	5,405	89.3	3,925	93.0	1,480	79.6
1972	86	67.4	6,342	88.4	4,324	92.6	2,018	79.2
1973	86	74.4	6,786	89.0	4,159	95.0	2,627	79.6
1974	88	69.6	7,924	86.7	4,462	90.7	3,462	81.4
1975	99	69.0	9,662	90.6	5,402	93.4	4,260	87.1
1976	103	67.9	10,809	88.4	5,924	92.5	4,885	83.4
1977	112 [†]	66.4	12,143	86.8	6,112	92.5	6,031	81.0
1978	117	68.1	13,105	87.0	6,561	91.5	6,544	82.5
1979	125	72.4	14,130	87.8	6,891	91.8	7,239	83.9
1980	135	66.4	15,053	86.3	7,306	89.0	7,747	83.7
1981	140	65.5	16,125	85.2	7,000	87.3	9,125	83.6
1982	151	78.1	17,085	91.1	6,389	96.0	10,696	88.2
1983	154	77.5	18,112	87.6	6,478	89.8	11,634	86.3
1984	166	82.7	18,822	95.1	6,587	93.0	12,235	97.3
1985	167	83.1	19,315	93.3	6,057	98.1	13,258	91.2
1986	189	74.6	19,958	87.3	5,664	94.6	14,294	82.3
1987	194	91.6	21,195	90.8	6,113	93.5	15,082	89.4
1988	197	78.2	22,908	91.4	6,253	95.5	16,655	89.8
1989	212	80.7	22,587	92.2	5,860	94.9	16,727	91.2

¹Excludes American Samoa, Guam, Puerto Rico, and the Virgin Islands.

[†]One school shown in the total number of programs reported no enrollments for 1977.

Table 3
ENROLLMENTS OF NURSES IN MASTER'S PROGRAMS,
PERCENTAGE CHANGE FROM PREVIOUS YEAR, AND PERCENTAGE ENROLLED FULL TIME,
BY NLN REGION: 1970 TO 1989¹

YEAR	ALL REGIONS				NORTH ATLANTIC				MIDWESTERN				SOUTHERN				WESTERN			
	Enrollments		Percent Full Time	Number of Programs	Enrollments		Percent Full Time	Number of Programs	Enrollments		Percent Full Time	Number of Programs	Enrollments		Percent Full Time	Number of Programs	Enrollments		Percent Full Time	Number of Programs
1970	73	4,765	+7.2	74.1	21	1,850	-5.5	72.1	21	1,020	+4.5	79.4	16	829	+19.5	74.4	15	1,066	+30.6	72.1
1971	79	5,405	+13.4	72.6	23	2,021	+9.2	70.6	23	1,257	+23.2	75.2	18	975	+17.6	71.8	15	1,152	+8.1	74.0
1972	86	6,342	+17.3	68.2	24	2,238	+10.7	70.2	25	1,417	+12.7	71.5	21	1,179	+20.9	66.7	16	1,508	+30.9	63.3
1973	86	6,786	+7.0	61.3	21	2,689	+20.2	57.7	26	1,583	+11.7	62.9	23	1,244	+5.5	56.4	16	1,270	-15.8	71.7
1974	92	7,924	+16.8	56.3	21	2,689	0.0	52.5	28	1,961	+23.9	58.2	24	1,834	+47.4	51.4	19	1,440	+13.4	67.2
1975	100	9,662	+21.9	55.9	24	3,337	+24.1	51.5	26	2,252	+14.8	54.6	29	2,358	+28.6	52.3	19	1,715	+19.1	71.7
1976	106	10,809	+11.9	54.8	26	3,853	+15.5	50.8	28	2,409	+7.0	55.0	33	2,805	+19.0	51.1	19	1,742	+1.6	69.3
1977	114 [†]	12,143	+12.3	50.3	26	3,994	+3.7	50.4	31 [†]	3,001	+24.6	47.2	40	3,281	+17.0	43.6	17	1,867	+7.2	67.3
1978	119	13,105	+7.9	50.1	29	4,344	+8.8	48.9	31	3,129	+4.3	45.1	40	3,454	+5.3	46.0	19	2,178	+16.7	65.8
1979	127	14,130	+7.8	48.8	29	4,968	-6.4	48.5	32	3,796	+21.3	44.6	46	3,942	+14.1	42.5	20	2,324	+6.7	66.7
1980	137	15,053	+6.5	48.5	32	4,472	-9.9	51.1	34	4,146	+9.2	40.6	48	3,964	+0.6	43.6	23	2,471	+6.3	65.0
1981	142	16,125	+7.1	43.4	34	4,848	+8.4	43.8	37	4,254	+2.6	35.9	48	4,390	+10.7	41.3	23	2,633	+6.6	58.4
1982	151	17,085	+6.3	37.4	37	5,344	+10.2	33.2	40	4,467	+5.0	29.0	52	4,561	+5.2	38.2	24	2,713	+3.0	57.7
1983	154	18,112	+6.5	34.6	37	5,830	+9.1	30.0	40	4,680	+4.8	27.2	51	4,807	+7.3	36.0	26	2,593	-4.4	59.1
1984	166	18,822	+3.9	35.0	42	5,861	+0.5	26.9	44	4,780	+2.1	35.5	54	5,403	+12.4	29.7	26	2,778	+7.1	61.6
1985	167	19,315	+2.6	31.4	42	5,837	-0.4	23.4	44	5,327	+11.4	24.6	54	5,330	-1.4	34.0	27	2,821	+1.5	44.2
1986	189	19,958	+3.3	28.4	48	5,883	+0.7	21.9	52	5,400	+1.4	20.1	56	5,590	+4.9	32.4	33	3,085	+9.4	47.9
1987	194	21,195	+6.2	28.7	52	6,380	+8.4	20.7	51	5,505	+1.9	21.5	56	6,004	+7.4	33.7	35	3,306	+7.1	47.5
1988	197	22,908	+8.1	27.3	53	7,425	+16.4	18.7	51	5,720	+3.9	19.1	57	5,986	-0.3	30.7	36	3,777	+14.3	50.9
1989	212	22,587	-1.4	25.9	57	6,313	-15.0	18.7	55	5,970	+4.4	16.9	64	6,581	+9.9	29.5	36	3,723	-1.4	46.1

¹Excludes American Samoa, Guam, Puerto Rico, and the Virgin Islands.

[†]One school shown in the total number of programs reported no enrollments for 1977.

Table 4
ENROLLMENTS OF REGISTERED NURSES IN MASTER'S PROGRAMS IN NURSING,
BY NLN REGION AND STATE: 1980 TO 1989¹

NLN REGION AND STATE	NUMBER OF ENROLLMENTS IN MASTER'S PROGRAMS									
	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989
United States	14,994	15,993	17,004	18,112	18,822	19,315	19,958	21,195	22,908	22,587
North Atlantic	4,472	4,848	5,344	5,830	5,861	5,837	5,883	6,380	7,425	6,313
Midwest	4,146	4,254	4,467	4,680	4,780	5,327	5,400	5,505	5,720	5,970
South	3,905	4,258	4,480	4,807	5,403	5,330	5,590	6,004	5,986	6,581
West	2,471	2,633	2,713	2,593	2,778	2,821	3,0085	3,306	3,777	3,723
Alabama	295	375	367	296	388	356	369	446	413	446
Alaska	0	12	25	12	14	27	18	18	18	33
Arizona	279	299	278	229	236	229	246	263	308	322
Arkansas	111	128	108	115	115	147	154	159	144	128
California	1,161	1,233	1,394	1,323	1,460	1,430	1,640	1,692	1,913	1,905
Colorado	171	165	192	164	191	207	200	262	431	240
Connecticut	277	276	289	288	290	394	439	472	501	481
Delaware	77	81	109	89	76	97	87	73	82	77
District of Columbia	340	332	355	342	349	373	328	305	268	275
Florida	177	204	275	381	409	474	497	513	576	674
Georgia	270	276	273	330	351	352	404	428	455	490
Hawaii	50	56	63	63	46	49	55	52	60	65
Idaho	19	26	31	32	20	30	49	41	41	80
Illinois	951	920	914	903	834	779	936	1,005	953	979
Indiana	571	564	604	501	474	676	519	703	663	661
Iowa	100	95	96	107	111	173	209	285	294	250
Kansas	322	323	354	328	290	321	287	265	285	287
Kentucky	100	109	112	88	144	142	180	147	189	512
Louisiana	190	230	218	257	267	265	235	220	202	230
Maine	0	0	31	51	64	67	78	50	44	57
Maryland	387	402	422	447	430	388	398	394	437	526
Massachusetts	542	590	525	562	655	662	489	657	558	516
Michigan	512	635	642	693	676	783	957	748	802	961
Minnesota	259	223	250	238	238	214	172	164	167	207
Mississippi	61	73	100	104	104	113	115	128	147	152
Missouri	283	263	289	339	393	399	426	452	457	473
Montana	26	23	18	16	13	11	22	24	20	23
Nebraska	97	125	127	141	119	115	120	77	156	172
Nevada	33	28	33	45	39	18	34	65	55	94
New Hampshire	0	0	0	0	0	0	35	54	41	36
New Jersey	313	280	300	349	362	377	276	345	251	264
New Mexico	32	44	42	47	44	51	35	59	81	92
New York	2,189	2,369	2,525	2,804	2,769	2,527	2,803	2,827	4,023	2,968
North Carolina	228	359	359	315	599	360	412	501	511	510
North Dakota	0	0	17	26	122	90	101	92	104	116
Ohio	558	616	749	888	1,007	1,201	1,064	1,113	1,204	1,218
Oklahoma	122	130	152	191	189	150	162	163	163	176
Oregon	137	188	158	158	174	181	173	224	227	276
Pennsylvania	674	851	1,123	1,263	1,231	1,267	1,260	1,507	1,535	1,539
Rhode Island	60	57	62	76	65	73	88	90	122	89
South Carolina	185	183	192	216	220	268	308	368	384	440
South Dakota	49	29	35	66	52	55	76	58	115	114
Tennessee	258	184	216	245	241	325	308	379	349	204
Texas	1,078	1,152	1,081	1,220	1,345	1,343	1,356	1,389	1,378	1,450
Utah	226	248	228	219	185	230	257	238	234	217
Vermont	0	0	0	0	0	0	0	0	0	11
Virginia	409	399	487	505	485	544	582	699	585	524
Washington	333	317	264	265	326	308	304	312	334	320
West Virginia	34	54	118	97	116	103	110	70	53	119
Wisconsin	435	425	417	433	464	521	533	543	520	512
Wyoming	4	6	12	20	30	50	52	56	55	56
American Samoa	0	0	0	0	0	0	0	0	0	0
Guam	0	0	0	0	0	0	0	0	0	51
Puerto Rico	59	132	81	202	151	134	95	155	160	161
Virgin Islands	0	0	0	0	0	0	0	0	0	0

¹ National and regional totals exclude American Samoa, Guam, Puerto Rico, and the Virgin Islands.

Table 5
FULL-TIME ENROLLMENTS OF NURSES IN MASTER'S PROGRAMS, BY FUNCTIONAL AREA OF STUDY:
1980 TO 1989¹

YEAR	FULL-TIME ENROLLMENTS BY FUNCTIONAL AREA OF STUDY									
	Total Full Time		Teaching		Administration/ Management		Advanced Clinical Practice		Other	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
1980	7,396	100.0	923	12.6	579	7.9	5,480	75.0	324	4.5
1981	7,000	100.0	732	10.5	596	8.5	5,418	77.4	254	3.6
1982	6,389	100.0	638	9.9	770	12.2	4,863	76.1	118	1.8
1983	6,478	100.0	873	13.5	784	12.1	4,639	71.6	182	2.8
1984	5,706*	100.0*	382	6.7	636	11.1	4,620	81.0	67	1.2
1985	6,057	100.0	485	8.0	806	13.3	4,651	76.8	115	1.9
1986	5,664	100.0	517	9.1	970	17.2	4,097	72.3	80	1.4
1987	6,113	100.0	575	9.4	1,033	16.9	4,475	73.2	30	0.5
1988	6,253	100.0	657	10.5	838	13.4	4,552	72.8	206	3.3
1989	5,860	100.0	615	10.5	879	15.0	4,260	72.7	106	1.8

¹ Excludes American Samoa, Guam, Puerto Rico, and the Virgin Islands.

* Eight programs did not respond to this section of the questionnaire.

Table 5a
FULL-TIME ENROLLMENTS IN ADVANCED CLINICAL PRACTICE BY NURSING CONTENT AREA: 1980 TO 1989¹

YEAR	FULL-TIME ENROLLMENTS BY NURSING CONTENT AREA													
	TOTAL		MEDICAL SURGICAL		MATERNAL CHILD		PSYCHIATRIC MENTAL HEALTH		COMMUNITY HEALTH		GERONTOLOGY [†]		OTHER (nursing service, public policy) or NOT DESIGNATED	
	Number	Percent of Total	Number	Percent of Total	Number	Percent of Total	Number	Percent of Total	Number	Percent of Total	Number	Percent of Total	Number	Percent of Total
1980	5,480	100.0	2,020	36.9	1,255	22.9	1,049	19.1	845	15.4	—	—	311	5.7
1981	5,418	100.0	1,856	34.3	1,267	23.7	850	15.7	787	14.5	—	—	638	11.8
1982	4,863	100.0	1,672	34.4	1,038	21.3	760	15.6	765	15.7	—	—	626	13.0
1983	4,639	100.0	1,740	37.5	818	17.6	669	14.4	801	17.3	—	—	611	13.2
1984 [‡]	5,451*	100.0*	1,696	31.1	1,458	26.6	677	12.4	408	7.5	—	—	1,212	22.2
1985	4,651	100.0	1,739	37.4	1,260	27.1	567	12.2	744	16.0	—	—	341	7.3
1986	4,097	100.0	1,259	30.8	1,562	38.1	402	9.8	611	14.9	—	—	263	6.4
1987	4,464	100.0	1,393	31.2	926	20.6	500	11.2	634	14.2	281	5.1	781	17.5
1988	4,552	100.0	1,357	29.8	851	18.7	487	10.7	469	10.3	223	4.9	1,165	25.6
1989	4,260	100.0	1,316	30.9	1,257	29.5	464	10.9	516	12.1	273	6.4	434	10.2

¹ Excludes American Samoa, Guam, Puerto Rico, and the Virgin Islands.

[‡] In 1984, all students preparing for a nursing content area were included. Since the overwhelming majority of students are preparing for advanced clinical practice (see Table 64) the 1984 entries still reflect trends in this data.

* Eight programs did not respond to this section of the questionnaire.

[†] 1987 is the first year that data on gerontology have been collected.

Table 5b
FULL-TIME ENROLLMENTS IN TEACHING BY NURSING CONTENT AREA: 1985 to 1989

YEAR	FULL-TIME ENROLLMENTS BY NURSING CONTENT AREA													
	TOTAL		MEDICAL SURGICAL		MATERNAL CHILD		PSYCHIATRIC MENTAL HEALTH		COMMUNITY HEALTH		GERONTOLOGY†		OTHER (nursing service, public policy) or NOT DESIGNATED	
	Number	Percent of Total	Number	Percent of Total	Number	Percent of Total	Number	Percent of Total	Number	Percent of Total	Number	Percent of Total	Number	Percent of Total
1985	485	100.0	236	48.5	101	20.8	46	9.5	53	11.0	—	—	49	10.2
1986	517	100.0	264	51.0	73	14.1	25	4.9	73	14.1	—	—	82	15.9
1987	573	100.0	222	38.8	101	17.6	36	6.3	72	12.5	13	2.3	129	22.5
1988	657	100.0	326	49.6	107	16.3	22	3.4	44	6.7	20	3.0	138	21.0
1989	615	100.0	270	43.9	130	21.1	52	8.4	66	10.8	15	2.5	82	13.3

† 1987 is the first year that data on gerontology have been collected.

Table 6
PART-TIME ENROLLMENTS OF NURSES IN MASTER'S PROGRAMS, BY FUNCTIONAL AREA OF STUDY: 1980 TO 1989†

YEAR	PART-TIME ENROLLMENTS BY FUNCTIONAL AREA OF STUDY									
	Total Part-Time		Teaching		Administration/Management		Advanced Clinical Practice		Other	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
1980	7,747	100.0	1,270	16.4	806	10.4	4,788	61.8	883	11.4
1981	9,125	100.0	1,506	16.5	1,122	12.3	5,484	60.1	1,013	11.1
1982	10,696	100.0	2,021	18.9	1,583	14.8	6,525	61.0	567	5.3
1983	11,634	100.0	2,367	20.3	2,107	18.1	6,442	55.4	716	6.2
1984	11,725*	100.0*	1,415	12.1	1,775	15.1	7,950	67.8	582	5.0
1985	13,258	100.0	1,286	9.7	2,890	21.8	8,843	66.7	239	1.8
1986	14,294	100.0	3,149	22.0	3,124	21.9	7,976	55.8	41	0.3
1987	15,082	100.0	2,353	15.6	3,454	22.9	9,260	61.4	15	0.1
1988	16,655	100.0	2,432	14.6	3,131	18.8	10,009	60.1	1,083	6.5
1989	16,727	100.0	2,275	13.6	4,198	25.1	10,020	59.9	234	1.4

† Excludes American Samoa, Guam, Puerto Rico, and the Virgin Islands.

* Eight programs did not respond to this section of the questionnaire.

Table 6a
PART-TIME ENROLLMENTS OF NURSES IN ADVANCED CLINICAL PRACTICE, BY NURSING CONTENT AREA: 1985 to 1989

YEAR	PART-TIME ENROLLMENTS BY NURSING CONTENT AREA													
	Total Part-Time		Medical-Surgical		Maternal-Child		Psychiatric-Mental Health		Community Health		Gerontology†		Other	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
1985	8,843	100.0	4,192	47.4	2,106	23.8	982	11.1	1,070	12.1	—	—	493	5.6
1986	7,976	100.0	3,505	44.0	1,639	20.5	1,000	12.5	1,046	13.1	—	—	786	9.9
1987	9,260	100.0	2,935	31.7	1,306	14.1	1,148	12.4	1,028	11.1	639	6.9	2,204	23.8
1988	10,009	100.0	3,013	30.1	1,321	13.2	1,251	12.5	871	8.7	621	6.2	2,932	29.3
1989	10,020	100.0	3,768	37.6	2,154	21.5	1,212	12.1	842	8.4	601	6.0	1,443	14.4

† 1987 is the first year that data on gerontology have been collected.

Table 6b
PART-TIME ENROLLMENTS OF NURSES IN TEACHING,
BY NURSING CONTENT AREA: 1985 to 1989

YEAR	PART-TIME ENROLLMENTS BY NURSING CONTENT AREA													
	Total Part Time		Medical-Surgical		Maternal-Child		Psychiatric-Mental Health		Community Health		Gerontology†		Other	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
1985	1,286	100.0	625	48.6	249	19.4	92	7.1	86	6.7	—	—	234	18.2
1986	3,149	100.0	1,306	41.5	1,059	33.6	279	8.9	283	9.0	—	—	222	7.0
1987	2,353	100.0	915	38.9	325	13.8	94	4.0	398	16.9	63	2.7	558	23.7
1988	2,432	100.0	983	40.4	350	14.4	126	5.2	224	9.2	68	2.8	681	28.0
1989	2,275	100.0	1,044	45.9	489	21.5	125	5.5	193	8.5	71	3.1	353	15.5

† 1987 is the first year that data on gerontology have been collected

Table 7
GRADUATIONS FROM MASTER'S PROGRAMS AND PERCENTAGE CHANGE FROM PREVIOUS YEAR,
BY NLN REGION: 1969-70 TO 1988-89¹

ACADEMIC YEAR	ALL REGIONS			NORTH ATLANTIC			MIDWESTERN			SOUTHERN			WESTERN		
	Number of Programs	Graduations		Number of Programs	Graduations		Number of Programs	Graduations		Number of Programs	Graduations		Number of Programs	Graduations	
		Number	Percent Change		Number	Percent Change		Number	Percent Change		Number	Percent Change		Number	Percent Change
1969-70	73	1,988	+12.6	21	857	+24.2	21	424	+12.5	16	311	+11.5	15	396	-5.7
1970-71	79	2,082	+4.7	23	787	-6.2	23	391	-7.8	18	380	+22.2	15	524	+32.3
1971-72	86	2,118	+1.7	24	725	-7.9	25	503	+28.6	21	369	-2.9	16	521	-0.6
1972-73	86	2,430	+14.7	21	818	+12.8	26	483	-4.0	23	552	+50.0	16	577	+10.7
1973-74	92	2,624	+8.0	21	911	+11.4	28	539	+11.6	24	603	+9.2	19	571	-1.0
1974-75	100	2,678	+2.1	24	955	+4.8	28	516	-4.3	29	642	+6.5	19	565	-1.0
1975-76	106	3,417	+27.6	26	1,186	+24.2	28	688	+33.3	33	854	+33.0	19	689	+21.9
1976-77	102	3,800	+11.2	24	1,284	+8.3	28	857	+24.6	33	1,027	+20.6	17	632	-8.3
1977-78	109	4,255	+12.0	26	1,573	+22.5	24	915	+6.8	37	1,145	+11.5	17	622	-1.6
1978-79	118	4,596	+8.0	27	1,630	+3.6	32	986	+7.8	41	1,307	+14.1	18	673	+8.2
1979-80	121	4,755	+3.5	29	1,565	-4.0	32	1,068	+8.3	41	1,333	+2.0	19	789	+17.2
1980-81	127	4,998	+5.1	30	1,472	-5.9	30	1,207	+13.0	46	1,510	+13.3	21	809	+2.5
1981-82	138	5,149	+3.0	32	1,530	+3.9	34	1,289	+6.8	48	1,463	-3.1	24	867	+7.1
1982-83	141	5,039	-2.1	34	1,565	+2.3	38	1,230	-4.6	45	1,325	-12.1	24	919	+6.0
1983-84	164*	5,082	+0.9	42	1,641	+4.7	44	1,165	-5.6	52	1,388	+4.6	26	888	-3.5
1984-85	167	5,247	+3.2	42	1,808	+10.2	44	1,224	+5.1	54	1,389	+0.1	27	826	-7.0
1985-86	189	5,248	0.0	48	1,541	-14.8	52	1,306	-6.7	56	1,496	+7.7	33	905	+9.6
1986-87	194	6,029	+14.9	52	2,080	+35.0	51	1,376	+5.3	56	1,628	+8.8	35	945	+4.4
1987-88	197	5,933	-1.6	53	1,817	-12.6	51	1,419	+3.1	57	1,686	+3.6	36	1,011	+7.0
1988-89	212	5,777	-2.6	57	1,703	-6.3	55	1,354	-4.6	64	1,782	+5.7	36	938	-7.2

¹ Excludes American Samoa, Guam, Puerto Rico, and the Virgin Islands.

* Two programs had not yet graduated their first class at time of reporting.

† A previously unreported program was included.

Table 8
GRADUATIONS OF REGISTERED NURSES FROM MASTER'S PROGRAMS IN NURSING,
BY NLN REGION AND STATE: 1979-80 TO 1988-89¹

NLN REGION AND STATE	NUMBER OF GRADUATIONS FROM MASTER'S PROGRAMS									
	1979-80	1980-81	1981-82	1982-83	1983-84	1984-85	1985-86	1986-87	1987-88	1988-89
United States	4,755	4,998	5,149	5,039	5,082	5,247	5,248	6,029	5,933	5,777
North Atlantic	1,565	1,472	1,530	1,565	1,641	1,808	1,541	2,080	1,817	1,703
Midwest	1,068	1,207	1,289	1,230	1,165	1,224	1,306	1,376	1,419	1,354
South	1,333	1,510	1,463	1,325	1,388	1,389	1,496	1,628	1,686	1,782
West	789	809	867	919	888	826	905	945	1,011	938
Alabama	166	175	179	148	107	100	150	132	146	134
Alaska	0	0	0	9	1	10	12	0	0	2
Arizona	71	60	85	79	64	65	65	55	56	48
Arkansas	25	28	25	24	16	18	18	21	30	42
California	376	359	377	439	479	427	477	517	436	500
Colorado	104	111	79	101	83	74	70	80	218	83
Connecticut	94	100	110	108	101	91	93	117	115	110
Delaware	15	18	23	37	32	29	26	27	19	22
District of Columbia	118	106	130	117	94	111	131	116	131	100
Florida	34	71	62	33	50	101	96	151	124	129
Georgia	151	136	125	96	114	87	123	97	122	122
Hawaii	15	21	22	18	25	18	9	23	20	7
Idaho	0	3	4	5	5	8	7	2	8	10
Illinois	257	310	374	314	252	282	294	328	261	294
Indiana	114	160	157	197	180	155	172	165	157	160
Iowa	13	28	12	20	18	17	25	17	18	26
Kansas	60	66	63	64	88	77	72	76	69	65
Kentucky	50	48	57	54	59	49	70	47	43	139
Louisiana	38	59	93	80	55	59	86	65	51	48
Maine	0	0	0	0	0	6	7	17	17	13
Maryland	95	111	107	122	110	137	99	113	109	106
Massachusetts	361	283	296	255	218	218	144	480	175	165
Michigan	175	140	156	137	138	155	184	170	179	152
Minnesota	88	105	102	97	100	84	68	103	126	68
Mississippi	59	45	34	42	46	50	37	43	43	59
Missouri	60	84	73	75	68	82	76	83	82	112
Montana	7	14	9	6	1	4	7	3	9	5
Nebraska	38	38	28	36	27	32	31	17	29	26
Nevada	0	6	3	5	7	1	7	8	5	7
New Hampshire	0	0	0	0	0	0	0	2	4	6
New Jersey	63	73	61	77	75	235	79	99	88	64
New Mexico	4	4	9	11	13	9	21	14	16	12
New York	661	607	581	564	691	702	645	645	772	680
North Carolina	81	108	104	120	88	93	103	87	112	129
North Dakota	0	0	0	0	4	3	6	26	18	22
Ohio	181	160	195	165	168	223	242	260	356	284
Oklahoma	31	51	42	30	44	75	54	57	42	43
Oregon	59	52	78	68	52	51	56	49	65	77
Pennsylvania	241	263	306	368	414	397	403	558	468	523
Rhode Island	12	22	23	19	16	19	13	19	28	20
South Carolina	52	60	62	38	89	42	50	61	89	110
South Dakota	0	0	6	11	15	7	14	15	6	10
Tennessee	131	104	117	70	94	94	84	109	113	54
Texas	325	341	289	277	298	255	320	352	380	413
Utah	36	42	61	63	62	61	47	54	61	65
Vermont	0	0	0	0	0	0	0	0	0	0
Virginia	77	165	156	170	193	167	174	261	244	229
Washington	117	137	139	114	95	102	123	134	109	105
West Virginia	18	8	11	21	25	42	32	32	38	25
Wisconsin	82	116	123	114	107	107	122	116	118	135
Wyoming	0	0	1	1	1	1	4	6	8	17
American Samoa	0	0	0	0	0	0	0	0	0	0
Guam	0	0	0	0	0	0	0	0	0	23
Puerto Rico	23	28	44	46	54	74	59	65	45	57
Virgin Islands	0	0	0	0	0	0	0	0	0	0

¹ National and regional totals exclude American Samoa, Guam, Puerto Rico, and the Virgin Islands.

Table 9
GRADUATIONS OF NURSES FROM MASTER'S PROGRAMS, BY FUNCTIONAL AREA OF STUDY:
1979-80 TO 1988-89¹

YEAR	GRADUATIONS BY FUNCTIONAL AREA OF STUDY									
	TOTAL		TEACHING		ADMINISTRATION/ MANAGEMENT		ADVANCED CLINICAL PRACTICE		OTHER	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
1979-80	4,778	100.0	794	16.6	392	8.2	3,342	70.0	250	5.2
1980-81	5,026	100.0	862	17.2	405	8.0	3,577	71.2	182	3.6
1981-82	5,193	100.0	670	12.9	690	13.3	3,806	73.3	27	0.5
1982-83	5,085	100.0	834	16.4	620	12.2	3,558	70.0	73	1.4
1983-84	4,669*	100.0*	475	10.2	619	13.2	3,545	75.9	30	0.6
1984-85	5,247	100.0	661	12.6	915	17.4	3,625	69.1	46	0.9
1985-86	5,248	100.0	684	13.0	841	16.1	3,679	70.1	44	0.8
1986-87	6,029	100.0	1,067	17.7	1,133	18.8	3,822	63.4	7	0.1
1987-88	5,933	100.0	831	14.0	973	16.4	3,910	65.9	219	3.7
1988-89	5,777	100.0	762	13.2	1,253	21.7	3,730	64.6	32	0.5

¹ Excludes American Samoa, Guam, Puerto Rico, and the Virgin Islands.

* Eight programs did not respond to this section of the questionnaire.

Table 10
GRADUATIONS OF NURSES FROM MASTER'S PROGRAMS, BY NURSING CONTENT AREA: 1979-80 TO 1988-89¹

ACADEMIC YEAR	GRADUATIONS BY NURSING CONTENT AREA													
	TOTAL		MEDICAL SURGICAL		MATERNAL CHILD		PSYCHIATRIC MENTAL HEALTH		COMMUNITY HEALTH		GERONTOLOGY†		OTHER (nursing administration, public policy) or NOT DESIGNATED	
	Number	Percent of Total	Number	Percent of Total	Number	Percent of Total	Number	Percent of Total	Number	Percent of Total	Number	Percent of Total	Number	Percent of Total
1979-80	4,778	100.0	1,678	35.1	823	17.2	781	16.4	627	13.1	—	—	869	18.2
1980-81	5,026	100.0	1,793	35.7	942	18.8	791	15.7	655	13.0	—	—	845	16.8
1981-82	5,193	100.0	1,775	34.2	942	18.1	787	15.2	724	13.9	—	—	965	18.6
1982-83	5,085	100.0	1,704	33.5	825	16.2	674	13.3	772	15.2	—	—	1,110	21.8
1983-84	4,390*	100.0*	1,436	32.7	1,152	26.2	548	12.4	306	7.0	—	—	948	21.6
1984-85	5,247	100.0	2,083	39.7	1,412	26.9	771	14.7	666	12.7	—	—	315	6.0
1985-86	5,248	100.0	1,839	35.0	1,276	24.3	513	9.8	419	8.0	—	—	1,201	22.9
1986-87	6,029	100.0	1,682	27.9	796	13.2	573	9.5	524	8.7	235	3.9	2,219	36.8
1987-88	5,933	100.0	1,816	30.6	1,115	18.8	712	12.0	611	10.3	338	5.7	1,341	22.6
1988-89	5,777	100.0	1,595	27.6	1,063	18.4	503	8.7	404	7.0	266	4.6	1,948	33.7

¹ Until 1983-84 data on American Samoa, Guam, Puerto Rico, and the Virgin Islands were included.

* Eight programs did not respond to this section of the questionnaire.

† 1987 is the first year that data on gerontology have been collected.

Table 11
DOCTORAL PROGRAMS IN NURSING LOCATED IN NURSING EDUCATION DEPARTMENTS: 1980 TO 1989¹

NLN REGION AND STATE	NUMBER OF PROGRAMS									
	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989
United States	22	23	25	27	31	33	38	45	46	47
North Atlantic	7	8	8	8	9	10	10	12	12	11
Midwest	6	6	7	9	10	10	11	11	11	12
South	4	4	5	5	6	6	10	14	15	16
West	5	5	5	5	6	7	7	8	8	8
Alabama	1	1	1	1	1	1	1	1	1	1
Alaska	0	0	0	0	0	0	0	0	0	0
Arizona	1	1	1	1	1	1	1	1	1	1
Arkansas	0	0	0	0	0	0	0	0	0	0
California	1	1	1	1	2	2	2	3	3	3
Colorado	1	1	1	1	1	1	1	1	1	1
Connecticut	0	0	0	0	0	0	0	0	0	0
Delaware	0	0	0	0	0	0	0	0	0	0
District of Columbia	1	1	1	1	1	1	1	1	1	1
Florida	0	0	0	0	1	1	2	2	2	2
Georgia	0	0	0	0	0	0	1	2	2	2
Hawaii	0	0	0	0	0	0	0	0	0	0
Idaho	0	0	0	0	0	0	0	0	0	0
Illinois	2	2	2	2	2	2	2	2	2	2
Indiana	1	1	1	1	1	1	1	1	1	1
Iowa	0	0	0	0	0	0	0	0	0	1
Kansas	0	0	0	1	1	1	1	1	1	1
Kentucky	0	0	0	0	0	0	0	1	1	1
Louisiana	0	0	0	0	0	0	1	1	1	1
Maine	0	0	0	0	0	0	0	0	0	0
Maryland	1	1	1	1	1	1	1	1	1	1
Massachusetts	1	1	1	1	1	1	1	2	2	1
Michigan	2	2	2	2	2	2	2	2	2	2
Minnesota	0	0	0	1	1	1	1	1	1	1
Mississippi	0	0	0	0	0	0	0	0	0	0
Missouri	0	0	0	0	0	0	0	0	0	0
Montana	0	0	0	0	0	0	0	0	0	0
Nebraska	0	0	0	0	0	0	0	0	0	0
Nevada	0	0	0	0	0	0	0	0	0	0
New Hampshire	0	0	0	0	0	0	0	0	0	0
New Jersey	0	0	0	0	0	0	0	0	0	0
New Mexico	0	0	0	0	0	0	0	0	0	0
New York	3	4	4	4	4	4	4	5	5	5
North Carolina	0	0	0	0	0	0	0	0	1	1
North Dakota	0	0	0	0	0	0	0	0	0	0
Ohio	1	1	1	1	1	1	2	2	2	2
Oklahoma	0	0	0	0	0	0	0	0	0	0
Oregon	0	0	0	0	0	1	1	1	1	1
Pennsylvania	2	2	2	2	3	3	3	3	3	3
Rhode Island	0	0	0	0	0	1	1	1	1	1
South Carolina	0	0	0	0	0	0	0	1	1	1
South Dakota	0	0	0	0	0	0	0	0	0	0
Tennessee	0	0	0	0	0	0	0	0	0	1
Texas	2	2	2	2	2	2	2	2	2	2
Utah	1	1	1	1	1	1	1	1	1	1
Vermont	0	0	0	0	0	0	0	0	0	0
Virginia	0	0	1	1	1	1	2	3	3	3
Washington	1	1	1	1	1	1	1	1	1	1
West Virginia	0	0	0	0	0	0	0	0	0	0
Wisconsin	0	0	1	1	2	2	2	2	2	2
Wyoming	0	0	0	0	0	0	0	0	0	0
American Samoa	0	0	0	0	0	0	0	0	0	0
Guam	0	0	0	0	0	0	0	0	0	0
Puerto Rico	0	0	0	0	0	0	0	0	0	0
Virgin Islands	0	0	0	0	0	0	0	0	0	0

¹ National and regional totals exclude American Samoa, Guam, Puerto Rico, and the Virgin Islands.

Table 12
ENROLLMENTS AND PERCENTAGE CHANGE FROM PREVIOUS YEAR
OF NURSES IN DOCTORAL PROGRAMS LOCATED IN NURSING EDUCATION DEPARTMENTS:
1970 TO 1989¹

ACADEMIC YEAR	NUMBER OF PROGRAMS	ENROLLMENTS					
		Total		Full-Time		Part-Time	
		Number	Percent Change	Number	Percent	Number	Percent
1970	6	312	+ 9.1	120	38.5	192	61.5
1971	6	293	- 6.1	151	51.5	142	48.5
1972	8	402	+ 37.2	180	44.8	222	55.2
1973	8	375	- 6.7	161	42.9	214	57.1
1974	9	482	+ 28.5	192	39.8	290	60.2
1975	12	506	+ 5.0	199	39.3	307	60.7
1976	14	632	+ 24.9	278	44.0	354	56.0
1977	16	790	+ 25.0	294	37.2	496	62.8
1978	21	789	- 0.1	358	45.4	431	54.6
1979	22	980	+ 24.2	504	51.4	476	48.6
1980	22	1,019	+ 4.0	603	59.2	416	40.8
1981	23	1,163	+ 14.1	625	53.7	538	46.3
1982	25	1,342	+ 15.4	655	48.8	687	51.2
1983	27	1,495	+ 11.4	685	45.8	810	54.2
1984	31	1,696	+ 13.4	758	44.7	938	55.3
1985	33	1,788	+ 5.4	685	38.3	1,103	61.7
1986	38	1,949	+ 9.0	782	40.0	1,167	60.0
1987	45	2,133	+ 9.4	1,018	47.7	1,115	52.3
1988	46	2,309	+ 8.3	955	41.4	1,354	58.6
1989	47	2,417	+ 4.7	987	40.8	1,430	59.2

¹ Excludes American Samoa, Guam, Puerto Rico, and the Virgin Islands.

Table 13
ENROLLMENTS OF REGISTERED NURSES IN DOCTORAL PROGRAMS LOCATED IN
NURSING EDUCATION DEPARTMENTS: 1980 TO 1989¹

NLN REGION AND STATE	NUMBER OF ENROLLMENTS									
	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989
United States	1,019	1,163	1,342	1,495	1,696	1,788	1,949	2,133	2,309	2,417
North Atlantic	452	450	518	576	643	662	603	606	624	591
Midwest	209	251	275	278	336	384	426	454	530	568
South	212	271	329	409	470	465	607	716	809	836
West	146	191	220	232	247	277	313	357	346	422
Alabama	49	53	60	64	65	71	83	118	108	105
Alaska	0	0	0	0	0	0	0	0	0	0
Arizona	19	20	23	28	34	28	41	45	42	45
Arkansas	0	0	0	0	0	0	0	0	0	0
California	64	92	106	96	105	125	133	162	180	197
Colorado	20	21	22	23	20	18	32	37	0	39
Connecticut	0	0	0	0	0	0	0	0	0	0
Delaware	0	0	0	0	0	0	0	0	0	0
District of Columbia	74	71	1	68	70	76	71	57	62	51
Florida	0	0	0	0	6	20	44	59	67	71
Georgia	0	0	0	0	0	0	9	31	46	60
Hawaii	0	0	0	0	0	0	0	0	0	0
Idaho	0	0	0	0	0	0	0	0	0	0
Illinois	79	87	79	103	90	137	152	137	182	198
Indiana	40	67	73	51	50	57	58	56	44	50
Iowa	0	0	0	0	0	0	0	0	0	13
Kansas	0	0	0	7	12	19	23	28	29	29
Kentucky	0	0	0	0	0	0	0	10	11	15
Louisiana	0	0	0	0	0	0	17	20	32	30
Maine	0	0	0	0	0	0	0	0	0	0
Maryland	16	25	37	44	49	45	59	60	62	59
Massachusetts	49	62	58	54	59	52	44	43	38	21
Michigan	65	71	84	65	109	76	79	96	117	115
Minnesota	0	0	0	3	7	16	16	20	23	25
Mississippi	0	0	0	0	0	0	0	0	0	0
Missouri	0	0	0	0	0	0	0	0	0	0
Montana	0	0	0	0	0	0	0	0	0	0
Nebraska	0	0	0	0	0	0	0	0	0	0
Nevada	0	0	0	0	0	0	0	0	0	0
New Hampshire	0	0	0	0	0	0	0	0	0	0
New Jersey	0	0	0	0	0	0	0	0	0	0
New Mexico	0	0	0	0	0	0	0	0	0	0
New York	274	249	313	363	393	387	329	328	326	319
North Carolina	0	0	0	0	0	0	0	0	0	8
North Dakota	0	0	0	0	0	0	0	0	0	0
Ohio	25	25	38	47	58	64	76	85	94	93
Oklahoma	0	0	0	0	0	0	0	0	0	0
Oregon	0	0	0	0	0	0	18	26	36	46
Pennsylvania	55	68	76	91	121	142	148	164	178	170
Rhode Island	0	0	0	0	0	5	11	14	20	30
South Carolina	0	0	0	0	0	0	0	10	20	30
South Dakota	0	0	0	0	0	0	0	0	0	0
Tennessee	0	0	0	0	0	0	0	0	0	16
Texas	147	193	224	289	338	303	345	350	371	343
Utah	19	29	35	47	48	56	51	46	44	47
Vermont	0	0	0	0	0	0	0	0	0	0
Virginia	0	0	8	12	12	26	50	58	92	99
Washington	24	29	34	38	40	40	38	41	44	48
West Virginia	0	0	0	0	0	0	0	0	0	0
Wisconsin	0	1	1	2	10	10	22	32	41	45
Wyoming	0	0	0	0	0	0	0	0	0	0
American Samoa	0	0	0	0	0	0	0	0	0	0
Guam	0	0	0	0	0	0	0	0	0	0
Puerto Rico	0	0	0	0	0	0	0	0	0	0
Virgin Islands	0	0	0	0	0	0	0	0	0	0

¹ National and regional totals exclude American Samoa, Guam, Puerto Rico, and the Virgin Islands.

Table 14
GRADUATIONS OF REGISTERED NURSES FROM DOCTORAL PROGRAMS LOCATED IN
NURSING EDUCATION DEPARTMENTS: 1979-80 TO 1988-89¹

NLN REGION AND STATE	NUMBER OF GRADUATIONS									
	1979-80	1980-81	1981-82	1982-83	1983-84	1984-85	1985-86	1986-87	1987-88	1988-89
United States	125	121	137	139	183	198	249	257	284	324
North Atlantic	85	62	59	45	67	56	75	80	86	88
Midwest	13	22	37	33	36	45	52	51	62	64
South	19	23	23	36	60	65	78	88	102	116
West	8	14	18	25	20	32	44	38	34	56
Alabama	10	8	8	12	16	13	11	14	18	24
Alaska	0	0	0	0	0	0	0	0	0	0
Arizona	1	3	3	2	5	3	7	7	5	7
Arkansas	0	0	0	0	0	0	0	0	0	0
California	7	9	6	9	10	21	16	10	14	23
Colorado	0	0	2	7	4	2	4	1	7	5
Connecticut	0	0	0	0	0	0	0	0	0	0
Delaware	0	0	0	0	0	0	0	0	0	0
District of Columbia	14	9	7	5	9	8	13	9	10	15
Florida	0	0	0	0	0	0	0	2	2	6
Georgia	0	0	0	0	0	0	0	0	0	0
Hawaii	0	0	0	0	0	0	0	0	0	0
Idaho	0	0	0	0	0	0	0	0	0	0
Illinois	6	8	14	11	12	20	18	16	21	21
Indiana	0	3	12	5	10	6	10	14	12	6
Iowa	0	0	0	0	0	0	0	0	0	0
Kansas	0	0	0	0	0	0	1	1	2	7
Kentucky	0	0	0	0	0	0	0	0	0	0
Louisiana	0	0	0	0	0	0	0	0	0	1
Maine	0	0	0	0	0	0	0	0	0	0
Maryland	0	0	0	0	2	5	5	5	8	8
Massachusetts	3	2	8	5	8	4	7	5	9	0
Michigan	4	8	8	13	8	13	13	8	17	10
Minnesota	0	0	0	0	0	0	0	0	1	1
Mississippi	0	0	0	0	0	0	0	0	0	0
Missouri	0	0	0	0	0	0	0	0	0	0
Montana	0	0	0	0	0	0	0	0	0	0
Nebraska	0	0	0	0	0	0	0	0	0	0
Nevada	0	0	0	0	0	0	0	0	0	0
New Hampshire	0	0	0	0	0	0	0	0	0	0
New Jersey	0	0	0	0	0	0	0	0	0	0
New Mexico	0	0	0	0	0	0	0	0	0	0
New York	61	47	38	27	44	36	46	56	51	62
North Carolina	0	0	0	0	0	0	0	0	0	0
North Dakota	0	0	0	0	0	0	0	0	0	0
Ohio	3	3	3	4	6	6	10	11	8	13
Oklahoma	0	0	0	0	0	0	0	0	0	0
Oregon	0	0	0	0	0	0	0	0	0	0
Pennsylvania	7	4	6	8	6	8	9	10	16	11
Rhode Island	0	0	0	0	0	0	0	0	0	0
South Carolina	0	0	0	0	0	0	0	0	0	0
South Dakota	0	0	0	0	0	0	0	0	0	0
Tennessee	0	0	0	0	0	0	0	0	0	0
Texas	9	15	15	24	39	46	61	65	72	71
Utah	0	2	5	4	1	3	8	12	6	10
Vermont	0	0	0	0	0	0	0	0	0	0
Virginia	0	0	0	0	0	0	1	2	2	6
Washington	0	0	2	3	3	1	9	8	2	11
West Virginia	0	0	0	0	0	0	0	0	0	0
Wisconsin	0	0	0	0	0	0	0	1	1	6
Wyoming	0	0	0	0	0	0	0	0	0	0
American Samoa	0	0	0	0	0	0	0	0	0	0
Guam	0	0	0	0	0	0	0	0	0	0
Puerto Rico	0	0	0	0	0	0	0	0	0	0
Virgin Islands	0	0	0	0	0	0	0	0	0	0

¹ National and regional totals exclude American Samoa, Guam, Puerto Rico, and the Virgin Islands.

PART THREE
THE SILENT FEW:
MEN AND MINORITIES IN NURSING EDUCATION



Section 3-1
Executive Summary



EXECUTIVE SUMMARY

THE STATUS OF MEN AND MINORITIES IN NURSING EDUCATION

Social and Demographic Trends in Higher Education

The recent improvement in nursing school enrollments should not eclipse the many difficult and complex problems facing nursing schools and all institutions of higher learning in the United States. Recruitment for many nursing schools has become an arduous and costly undertaking, even as interest in the profession increases. Several significant social and demographic trends continue to reverberate within the nation's educational system: the declining numbers of college-age people who make up a large part of the potential applicant pool for college and professional education, the increasing number and types of minorities in the United States, and the growing need for student financial assistance because of the high cost of education and the lower socioeconomic background of today's college-bound cohort.

It is important to note that America is an aging society with a greater proportion of the population entering their middle and senior years. In 1970, almost 12 percent of the population were among the "college aged" (defined as those between 18 and 24 years of age), and by 1980 that cohort grew to over 13 percent. By 1990, however, the percentage had fallen to 10 percent, and it is projected to fall to 9 percent by the year 2000 (Figure 1).

Traditionally, nursing as well as other professional groups drew from the predominantly white cohort of high school graduates. Over the years, as American society has become more racially diverse and civil rights initiatives have taken hold, the demographic composition of the applicant pool headed toward college and professional education has become varied. Furthermore, median family income declines and the number of children growing up in poverty have increased at a frightening pace as the American economic system shifts dramatically (U. S. Census Bureau, 1988).

In his landmark 1985 study, *All One System*, Hodgkinson analyzed demographic trends and their impact on America's educational system. He concluded that "by around the year 2000, America will be a nation in which *one of every three* of us will be non-white. And minorities will cover a broader socioeconomic range than ever before, making simplistic treatment of their (educational) needs even less useful" (p. 7, emphasis in original).

Estimating the Racial/Ethnic Composition of the Nursing Student Body: A Methodological Caveat

The National League for Nursing has been collecting data on minority nursing students since 1979. In 1990, NLN was awarded a contract from the Division of Nursing of the Bureau of Health Professions, Department of Health and Human Services (DHHS) to evaluate the consistency and reliability of the available data on nursing education.

The purpose of the contract was to develop a system for the analysis and evaluation of all the data reported by each nursing program to ensure consistency, ease of interpretation, and ability to develop appropriate estimates for those areas in which complete data are not available. Once the systematic approach for evaluating data was put in place, an investigation of the scope and quality of the data on the racial/ethnic background of the student body was undertaken. This included an evaluation of the minority data and a revision of the data collection and analysis protocols to ensure proper interpretation of these important and sensitive data. The Ap-

Note: All the data presented in Figures 1 through 9 originate from NLN's Annual Survey of Nursing Educational Programs unless otherwise indicated.

pendix of this volume provides a detailed description of the new methodology.

Typically, an 80 to 85 percent response rate is obtained on the racial/ethnic section of our annual survey. In the past, when reporting the results of this part of the study, these data were presented in their so-called raw form with no effort to deal with missing data. The treatment of these data assumed that respondents and nonrespondents were identical on important institutional variables, and hence there was no way to know if the reported percent of minorities was inflating or deflating the actual figures. Readers were cautioned to use the data carefully when extrapolating to the entire student body.

The treatment of nonresponse is a difficult and complex methodological concern. The absence of minority data for a particular nursing school may mean any number of things—that the program has no minority students, that they do not collect data on minority students, that they cannot track down the appropriate data, and so forth. It is interesting to note that the response rate and accuracy of the data have improved in recent years. This improvement can be partially explained by the fact that nursing schools have become increasingly sensitive to the issues of minority representation and that the federal government requires that such data be collected for funding opportunities.

One of the primary objectives of the DHHS contract with the NLN was to develop a system to reliably estimate the minority composition of the total nursing student body on the basis of an incomplete data set. In estimating the total student population, several critical variables were taken into account—program type, geographic location, and financial support. As suspected, the new methodology produced findings that were somewhat different from the old methodology. The percent of blacks in particular appeared to be under-reported in the old methodology (Tables 1 and 1a).

In short, an evaluation of the approach used for reporting and interpreting minority data in previous years found that some under-reporting of minority students had taken place, particularly in the case of blacks. Since the newly developed methodology used to estimate the racial/ethnic composition of the nursing student body has produced findings that are much more reliable than the data reported in the past, it would be difficult, if not impossible, to properly interpret historical trends in view of these most recent findings. For these reasons we cannot provide reliable trend data.

The annual survey is well-known for its data on enrollments, admissions, and graduations. Yet, there are other areas for which data are collected that are less well-known. For example, in addition to the collection of data on enrollments, the annual survey also inquires as to the full-time/part-time status of the enrolled students as well as class-by-class breakdowns. The contract with the Division of Nursing has provided an opportunity to examine and improve many of the data collection protocols in order to enhance the quality of these other areas that historically have received less attention.

Racial/Ethnic Composition of the Nursing Student Body

Cognizant of the shrinking numbers of white applicants and desiring an equitable representation of the diversity within American society, nursing educators have long recognized the need and value of recruiting minority students. Even before the declining enrollments of the late 1980s, efforts had been made to increase the numbers of minority students.

According to the American Council on Education, in fall 1988 minority students comprised 17 percent of the total entering full-time freshman college class. Blacks comprised just under 10 percent, 3 percent were Hispanic, 3 percent were Asian-American, and less than 1 percent were American Indian. Among the nation's basic nursing educational programs, 17.7 percent of the new admissions were of minority background: 11.4 percent black, 3.2 percent Hispanic, 2.6 percent Asian, and 0.5 percent American Indian. Generally speaking, these data suggest that the racial/ethnic composition within the nation's nursing educational programs is quite similar to the national average. The proportion of blacks, however, is a bit greater than the national picture (Figures 2 and 3).

Furthermore, in the area of enrollments, the American Council on Education reports some differences in the proportion of minorities in the nation's two-year and four-year educational institutions. In 1986, "increases in the enrollments of American Indians, Hispanics, and blacks were concentrated in two-year institutions," and a greater proportion of Asian-Americans were enrolled in four-year institutions (Carter, 1990).

National League for Nursing data found that the patterns of minority representation in associate degree (i.e.,

two-year) and basic baccalaureate (i.e., four-year) nursing programs are somewhat dissimilar to the national trend. Blacks and Asians are more likely to be enrolled in baccalaureate than in associate degree nursing programs. Almost equal percentages of Hispanic and American Indian nursing students are enrolled in two- and four-year programs (Figures 4a and 4b).

Not surprisingly, the ratio of minority nursing students varies across geographic regions. The North Atlantic and Southern regions report the largest percentage of black graduates (12.3 percent each). Hispanic, Asian, and American Indian students are proportionally more plentiful in the West (Figure 5).

It is interesting to note that the proportion of minorities in LPN/LVN programs is significantly greater than in RN programs (Figure 6). Almost 15 percent of the graduates of LPN/LVN programs are black, compared to 9.2 percent in RN programs. Similarly, Hispanics and American Indians comprise a larger percent of the graduates of LPN/LVN programs than RN programs. Increasing opportunities exist for LPNs/LVNs to improve their careers by advancing to RN programs, and greater access to these career ladders may ultimately increase the numbers of minorities within the RN supply.

Men in Nursing Education

Nursing is the preeminent female profession with almost 97 percent of all registered nurses being women. In 1988, fewer than 70,000 men held RN licenses (Moses, 1990). The active recruitment of men into nursing schools has remained a controversial topic for many nurse educators. While some institutions concentrate their efforts on attracting men to nursing (most notable is Columbia University in New York), targeted recruitment of racial/ethnic minorities continues to dominate the agenda for the nursing profession. The glaring absence of literature on recruitment efforts targeted at men demonstrates its position among nursing issues.

Nonetheless, the percentage of men in nursing education programs has increased unabated for the past half decade (Figure 7). Females comprise over 90 percent of all enrollments in nursing schools. Baccalaureate programs report a slightly smaller group of men than the other educational program types (Figure 8), and the greatest proportion of men are located in the West (Figure 9). Despite the increased interest among men in nursing careers, it appears that they will remain a small minority within the nursing supply.

Conclusions and Policy Implications

Demographic trends indicate that Hispanic and Asian populations will continue to grow dramatically, while modest growth will persist within the black population. Nursing and other disciplines within institutions of higher learning have witnessed increases in minority enrollments, yet there is still a pressing need to expand the numbers of black, Hispanic, Asian, and American Indian students. As one policy analyst stated:

"Some consider the need to better educate all our citizenry as a general social imperative, while others view it as essential to keeping America competitive in an expanding world economy. Still others cite historical and economic inequities as reasons for addressing this concern. But whatever view educators take they agree that as a nation we cannot continue to place this issue at a low priority" (Carter, 1990).

Nursing scores high grades in efforts to recruit minorities, and in some ways, minorities are better represented in nursing than in other disciplines. Nonetheless, the need to increase college participation, and hence nursing school participation, for under-represented groups must be a higher priority. Increased representation of minorities in nursing serves many societal goals. Primarily, from a nursing perspective, the increasing racial diversity within American society requires the preparation of minority nurses to assist in articulating and understanding the cultural and health care needs of minority clients as well as to care for them. As one nurse historian commented:

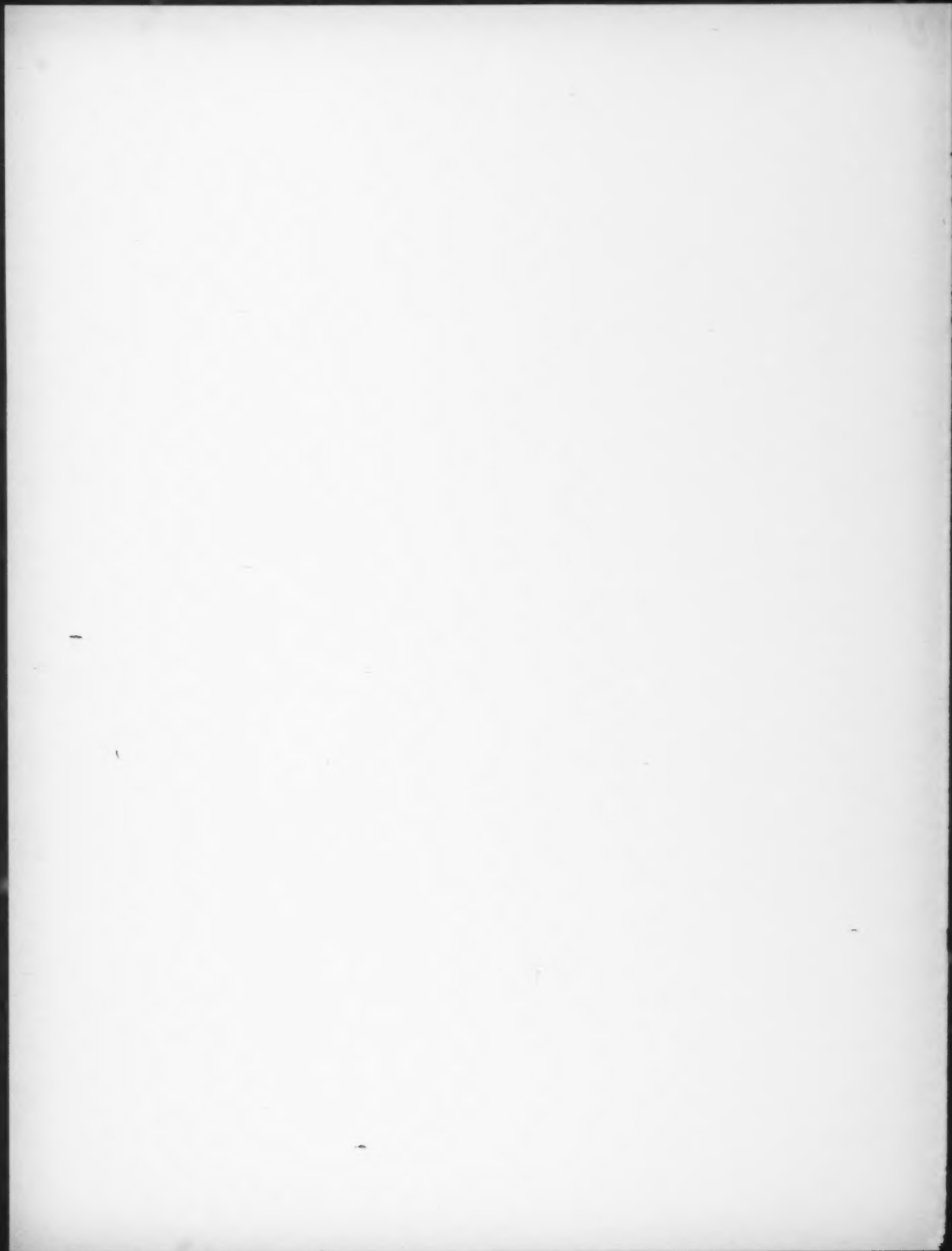
"Nursing is the only profession that is so well matched to its clientele in class, racial, and educational diversity. Nursing's responsiveness to society's needs can be attributed to its social closeness to those in need" (Baer, 1990, p. 36).

To achieve this goal, stronger federal, state, and institutional policies will be needed to recruit and retain minority students.

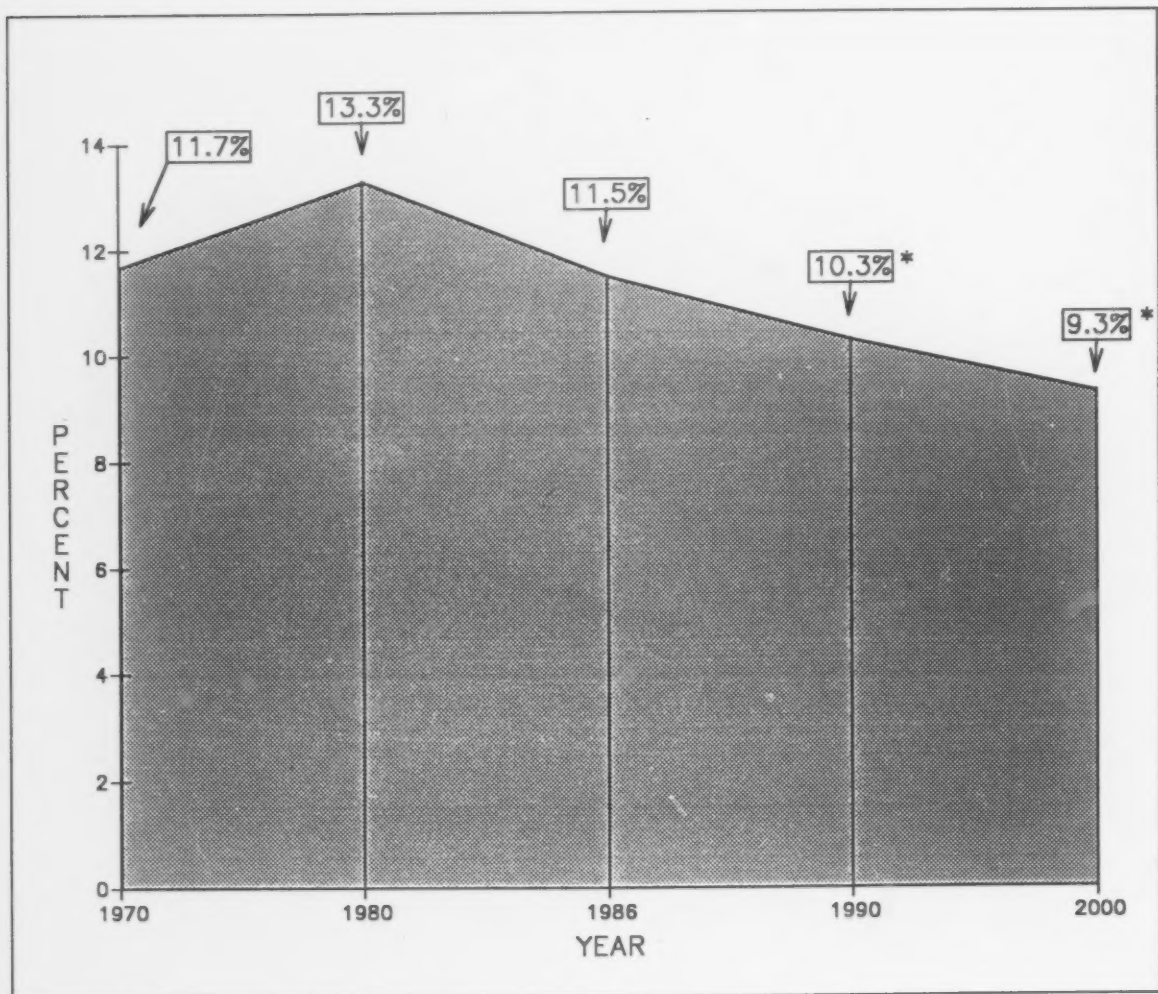
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Section 3-2
Graphs



The Decline in the College-Age Population in the United States, 1970 to 2000



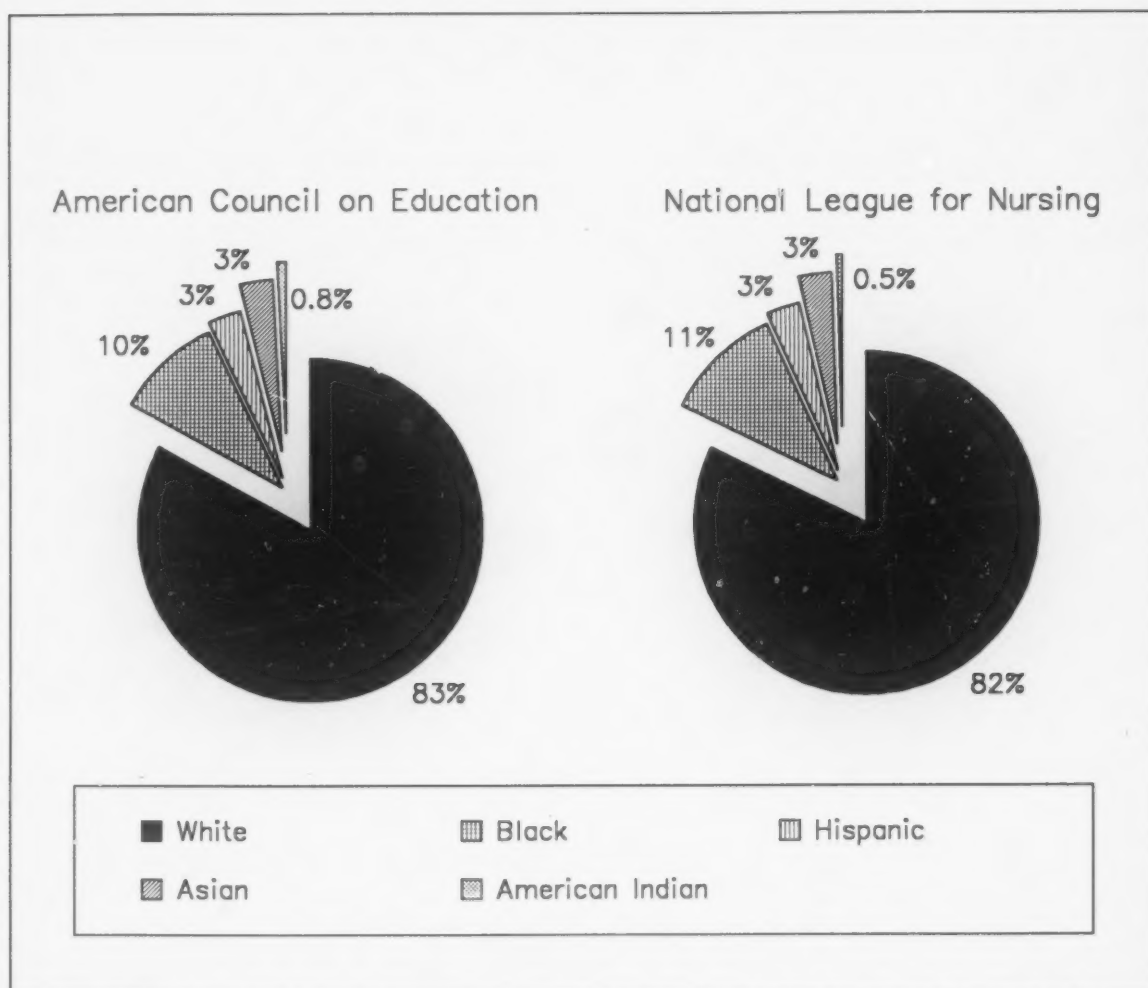
Source: U.S. Bureau of the Census, *Current Population Study*, unpublished data.

* The percentages for the years 1990 and 2000 are projected.

Figure 1. The Decline in the College-Age Population in the United States, 1970 to 2000

America is an aging society with a small proportion of the population situated in the 18- to 24-year-old-category. In 1970, almost 12 percent of the population were among the college aged, and by 1980 that cohort had grown to over 13 percent. The college-aged cohort is expected to shrink as we enter the next century and is projected to comprise just 9 percent of the population in the year 2000.

First-Year College Enrollments and Nursing School Admissions by Racial/Ethnic Background, 1989



* Information from the American Council on Education is based on 1988 data. First-year enrollments are equivalent to annual admissions.

Figure 2. First-Year College Enrollments and Nursing School Admissions by Racial/Ethnic Background, 1989

The overall proportion of minority enrollments in nursing schools is quite similar to the national average. Blacks comprise about 10 percent and Hispanics account for 3 percent of the students enrolled at the nation's colleges and nursing schools. Enrollments of Asians and American Indians are slightly lower at nursing schools than at the nation's colleges.

Minority Enrollments by Type of Nursing Program, 1989

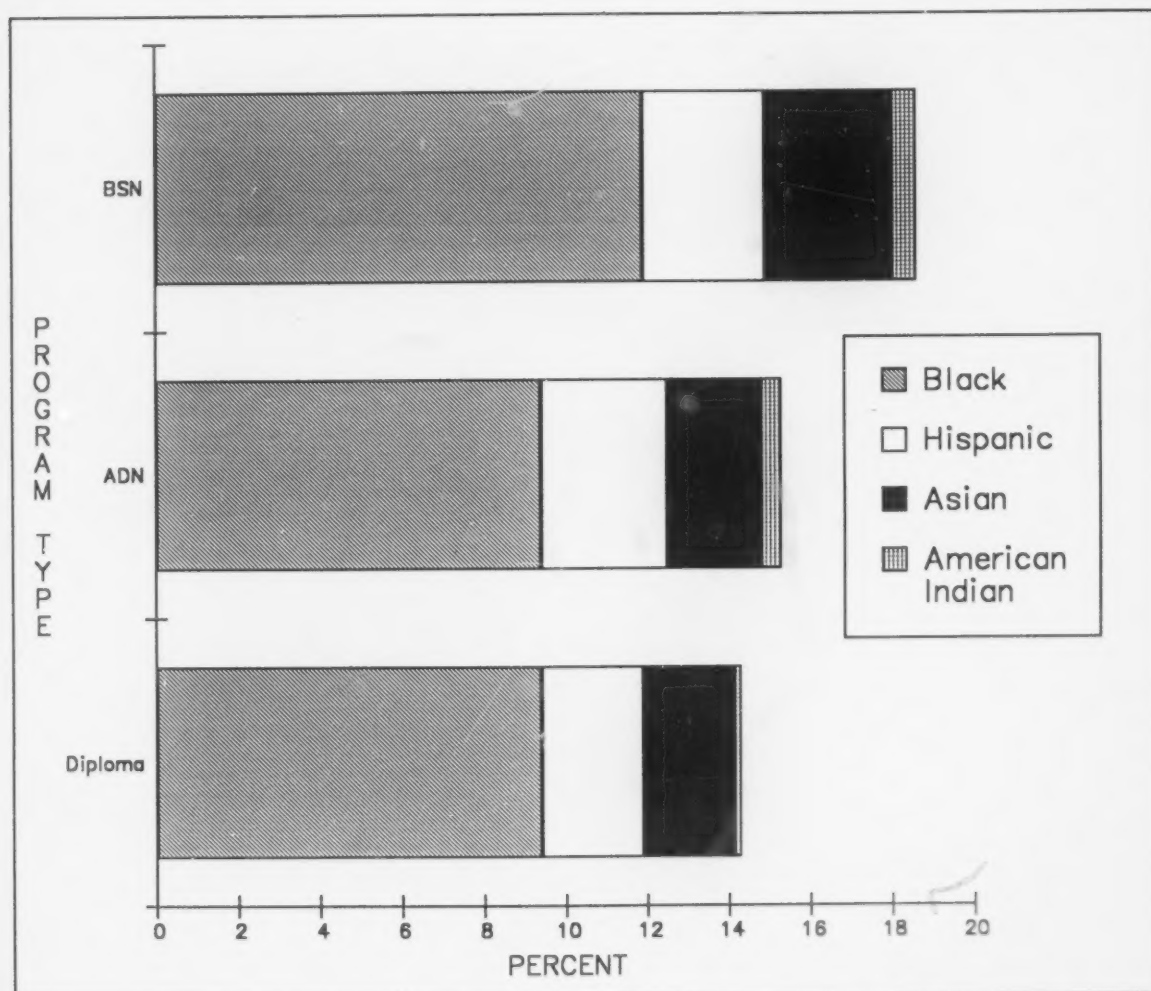
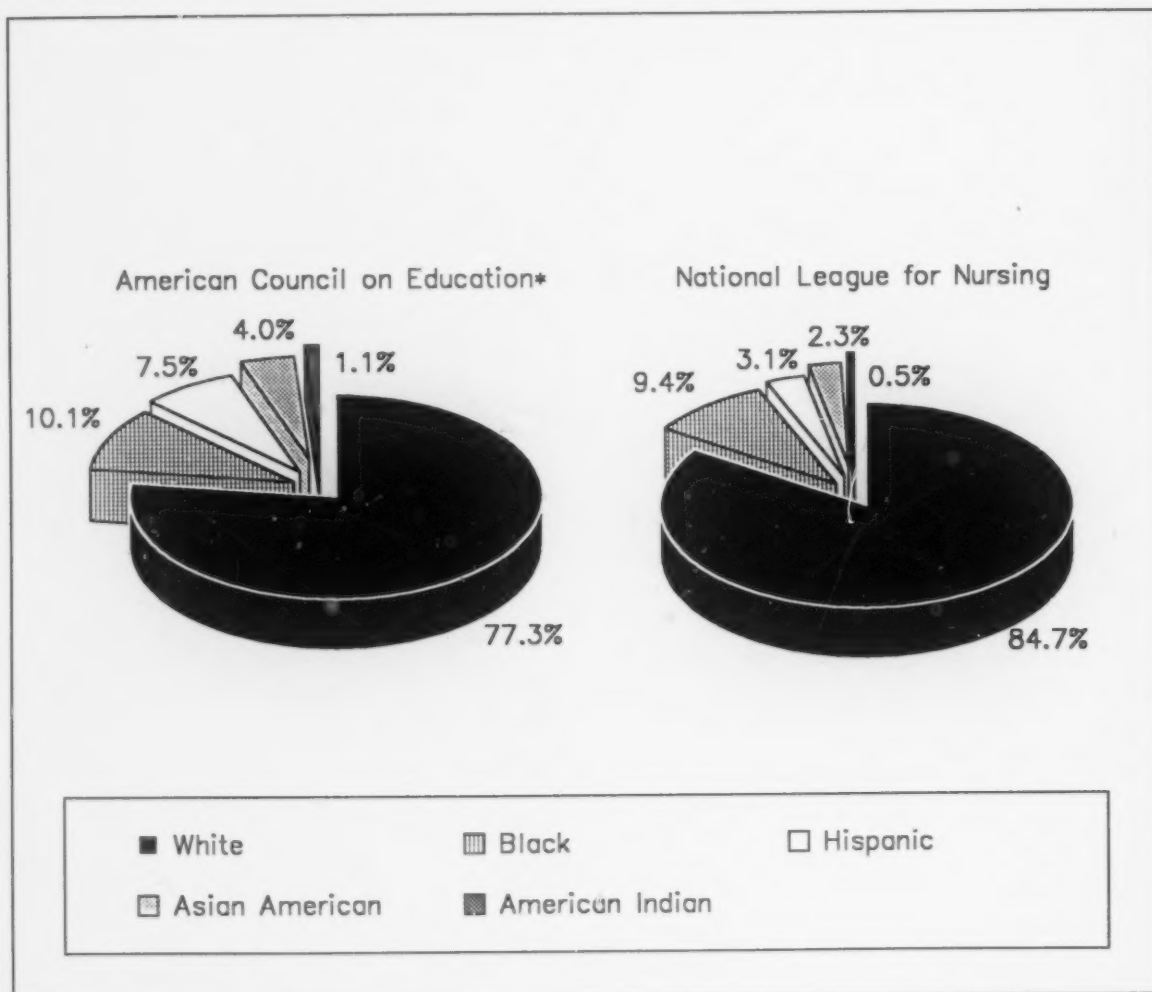


Figure 3. Minority Enrollments by Type of Nursing Program, 1989

Larger proportions of black and Asian students are enrolled in baccalaureate programs (12 percent and 3.1 percent respectively). Representation of Hispanics is almost identical among the different program types.

Racial/Ethnic Backgrounds of Students Enrolled in Two-Year Programs: All College Programs versus Nursing School Programs

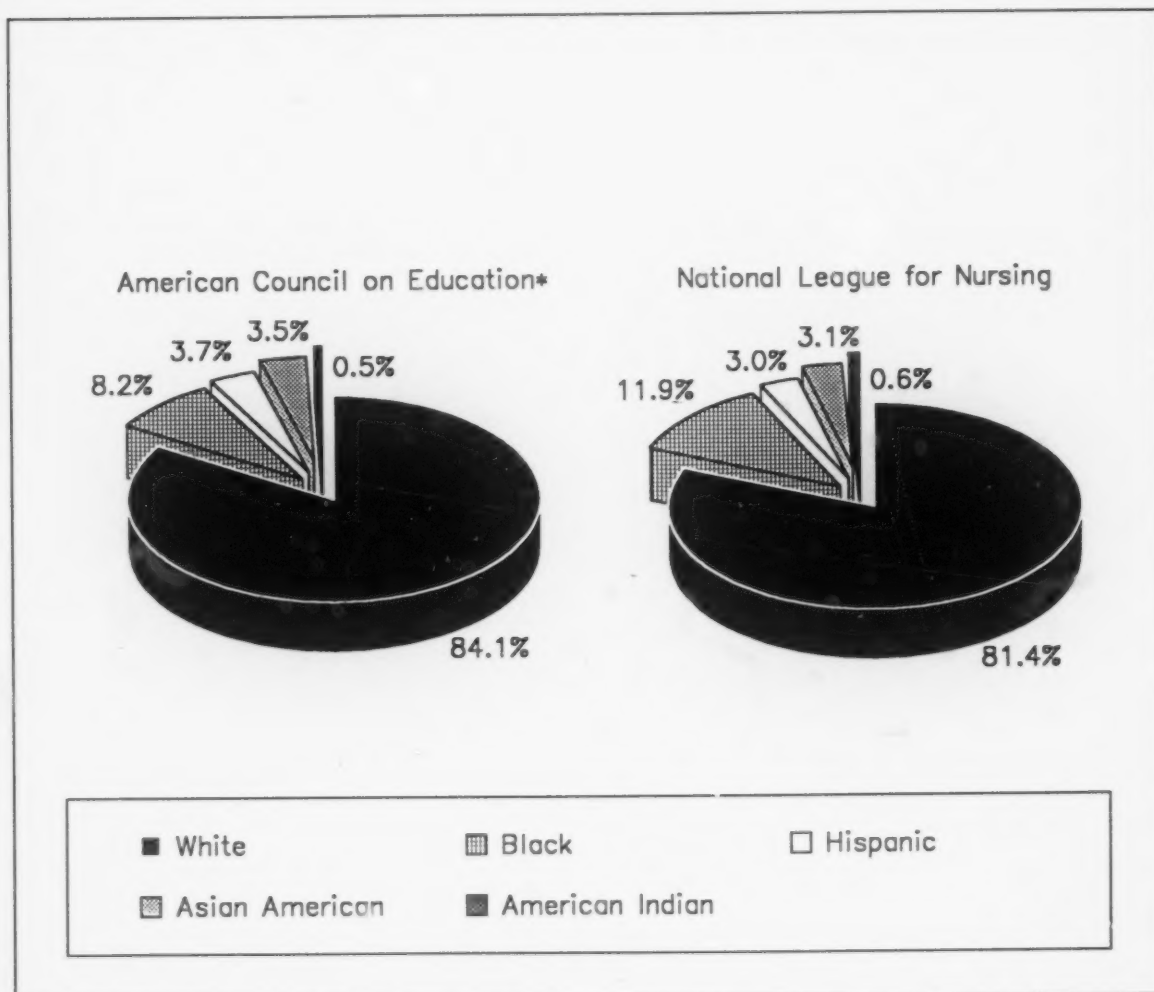


Information from the American Council on Education is based on 1986 data

Figure 4a. Racial/Ethnic Backgrounds of Students Enrolled in Two-Year Programs: All College Programs versus Nursing School Programs

Associate degree nursing programs, traditionally located in two-year junior and community colleges, report lower proportions of minority students than the two-year institutions in general. The proportions of Hispanics and Asians are significantly lower in the nation's nursing schools and blacks and American Indians are somewhat under-represented in two-year nursing education programs.

Racial/Ethnic Backgrounds of Students Enrolled in Four-Year Programs: All College Programs versus Nursing School Programs



Information from the American Council on Education is based on 1986 data

Figure 4b. Racial/Ethnic Backgrounds of Students Enrolled in Four-Year Programs: All College Programs versus Nursing School Programs

The proportion of blacks is considerably greater among the nation's four-year basic RN baccalaureate programs than among four-year colleges (12 percent vs. 8.2 percent respectively). On the other hand there are few Hispanics enrolled in nursing programs as compared to the overall proportion of Hispanic students in four-year institutions. Asians and American Indians are fairly well represented in four-year nursing programs compared with the national average.

Regional Distribution of Graduates from Basic RN Programs by Racial/Ethnic Background, 1989

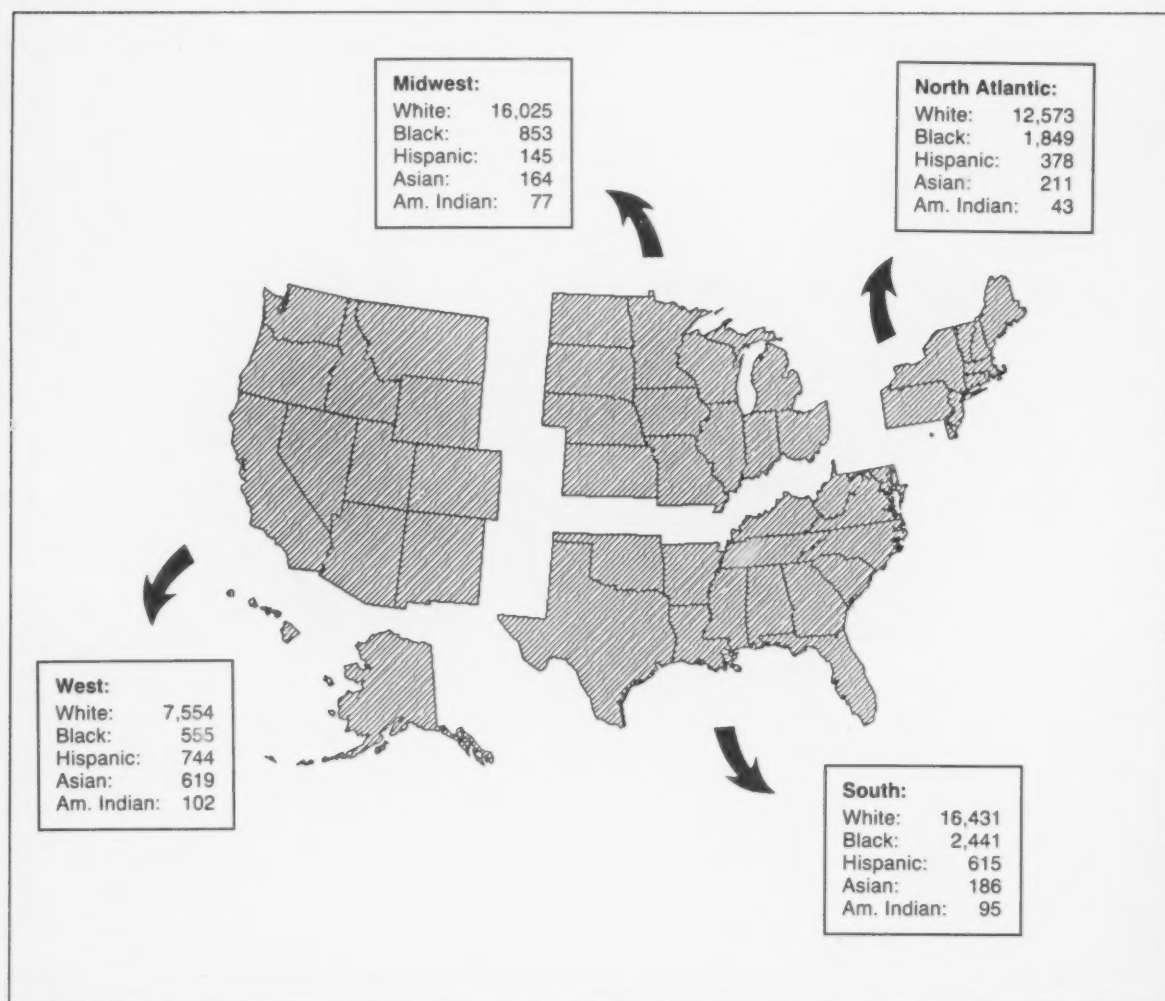


Figure 5. Regional Distribution of Graduates from Basic RN Programs by Racial/Ethnic Background, 1989

The greatest percentage of black graduates from nursing schools are found in the North Atlantic and Southern regions (12 percent in each). The West reports the largest proportion of Hispanic, Asian, and American Indian graduates.

The largest *number* of black graduates are found in the South (2,441) and North Atlantic (1,849). The largest groups of Asian, Hispanic, and American Indian graduates are located in the West (619, 744, and 102).

Graduations from Basic RN and LPN/LVN Programs by Racial/Ethnic Background, 1989

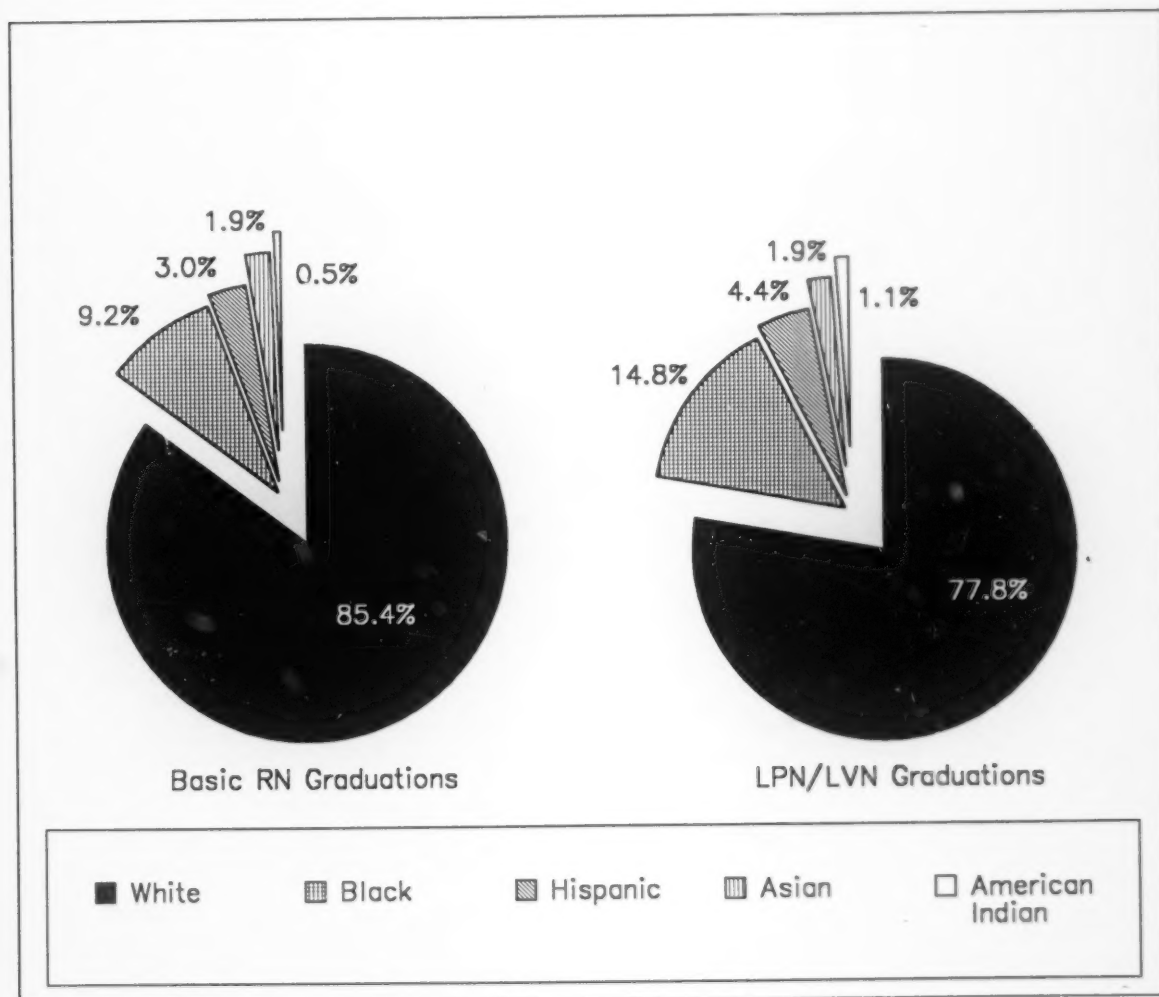


Figure 6. Graduations from Basic RN and LPN/LVN Programs by Racial/Ethnic Background, 1989

Over 22 percent of the graduates from LPN/LVN programs are from minority backgrounds in contrast to 15 percent of RN graduates. There is greater representation of all minority groups, except Asians, among LPN/LVN graduates. The trend toward educational mobility among LPNs/LVNs may in the future increase the number of minorities in RN programs.

Admissions of Men by Program Type: 1981 to 1989

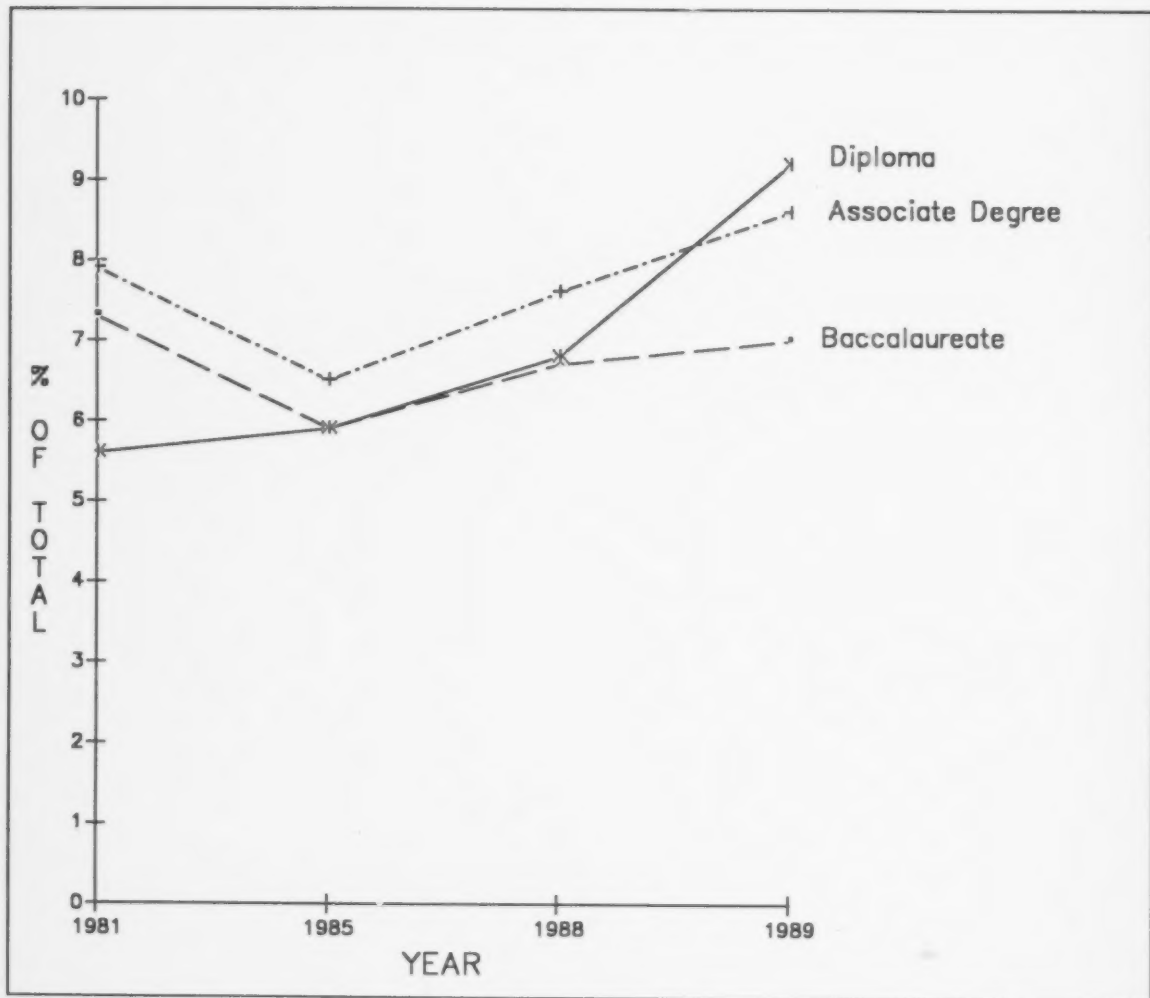


Figure 7. Admissions of Men by Program Type: 1981 to 1989

The overall number of men entering the nation's nursing schools has increased steadily for the past half decade, from 6.3 percent of the total in 1985 to 8.2 percent in 1989. The greatest increases in male admissions have been reported by diploma programs: in 1985, 5.9 percent of diploma admissions were male, and by 1989 the figure stood at 9.2 percent. Associate degree programs increased their proportion of male admissions by 2.1 percent over the past five years, and the percentage of men admitted to baccalaureate programs grew by 1.1 percent over the same time period.

Enrollments by Type of Program and Gender, 1989

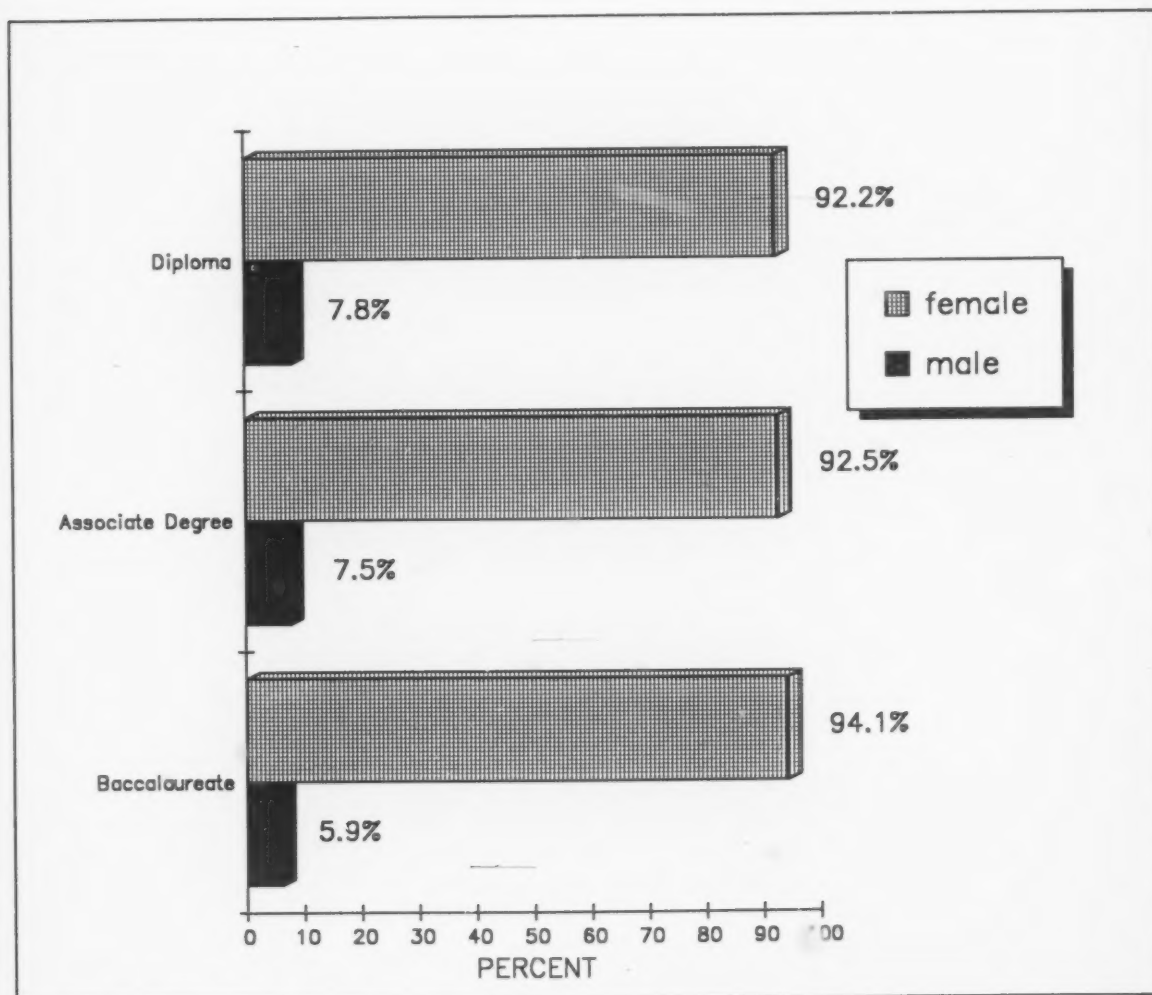


Figure 8. Enrollments by Type of Program and Gender, 1989

While the percentage of men enrolled in nursing education programs remains quite low, there are some variations among the different program types. In 1989, almost 8 percent of diploma and associate degree students were men but fewer than 6 percent of the total enrollment in basic baccalaureate programs were men.

Regional Distribution of Male Graduates from Basic RN Programs, 1989

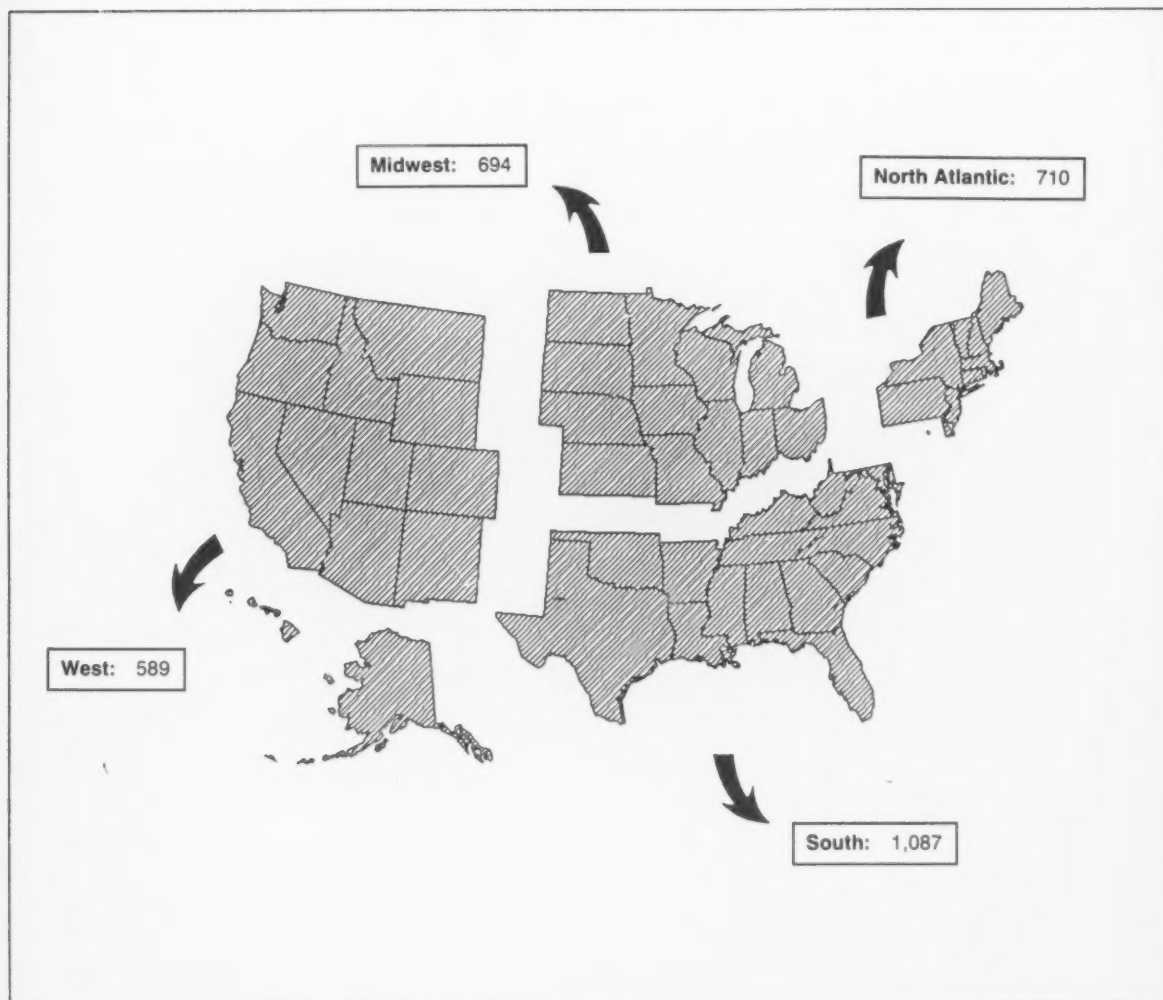


Figure 9. Regional Distribution of Male Graduates from Basic RN Programs, 1989

Men comprise 5 percent of the graduates from basic RN programs. The West reports the largest *proportion* (6 percent) and the South the greatest *number* of male graduates.

Section 3-3
Numeric Tables

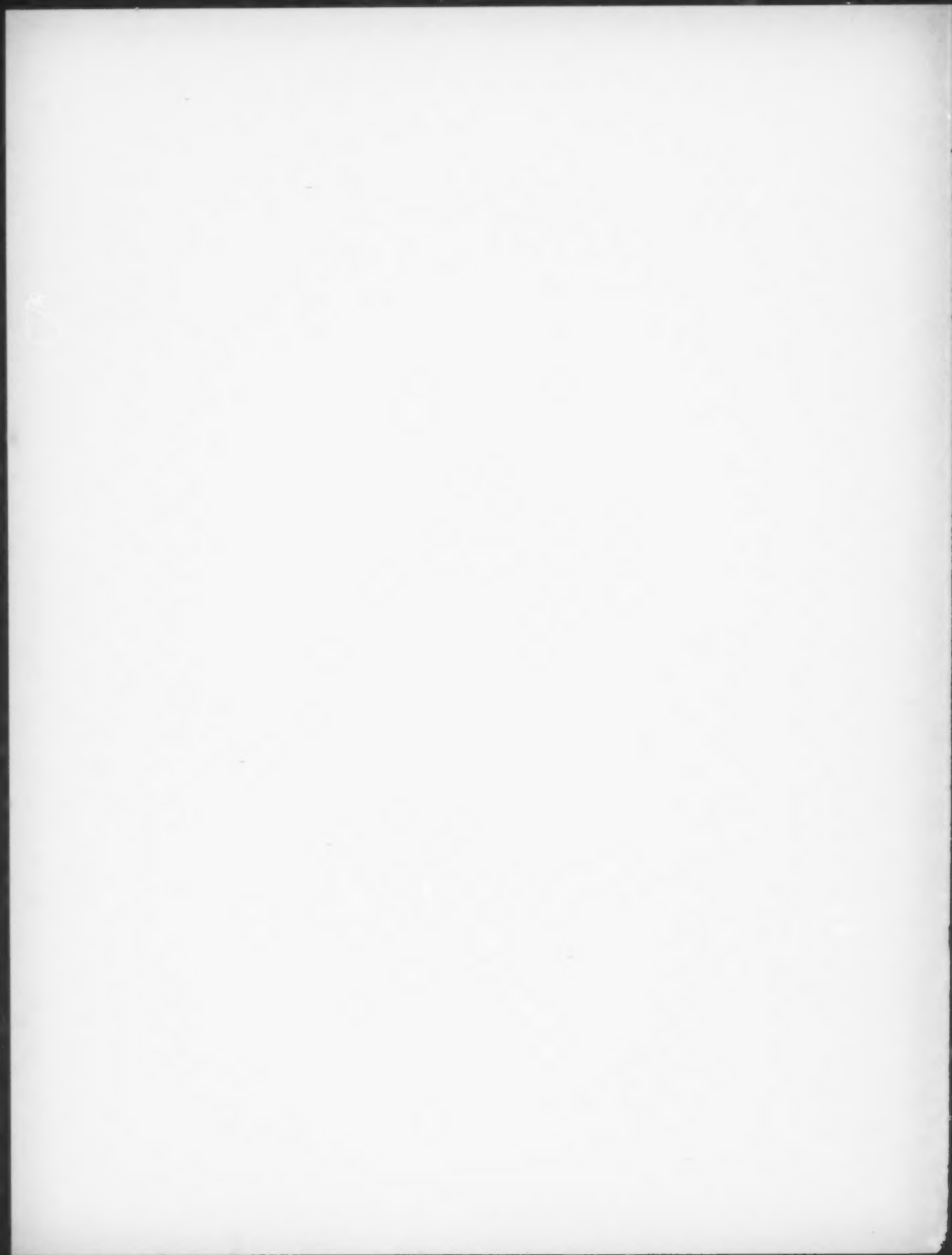


Table 1
ADMISSIONS OF MINORITY STUDENTS
TO ALL BASIC RN PROGRAMS, BY NLN REGION AND STATE: 1988-1989¹

NLN REGION AND STATE	NUMBER OF PROGRAMS REPORTING	TOTAL RN ADMISSIONS ²	NUMBER OF ADMISSIONS			
			Black	Hispanic	Asian	American Indian
United States	1,272	92,184	9,877	2,752	2,191	490
North Atlantic	307	24,259	3,371	655	538	94
Midwest	361	23,515	1,408	245	311	78
South	433	32,480	4,488	1,013	467	184
West	171	11,930	610	839	875	134
Alabama	31	2,239	406	13	11	3
Alaska	2	266	14	14	10	7
Arizona	15	996	22	55	15	25
Arkansas	21	1,415	156	8	16	7
California	66	5,073	507	511	572	17
Colorado	10	975	14	60	11	4
Connecticut	16	1,112	96	29	12	1
Delaware	7	386	53	3	6	0
District of Columbia	4	225	91	1	9	1
Florida	31	3,306	483	234	67	5
Georgia	30	2,119	371	11	19	3
Hawaii	4	195	7	3	125	2
Idaho	6	289	1	1	4	4
Illinois	61	3,942	433	82	112	4
Indiana	35	2,004	94	22	9	3
Iowa	33	1,546	22	6	12	4
Kansas	31	1,182	47	25	18	1
Kentucky	22	1,596	63	2	9	1
Louisiana	20	1,636	320	10	19	8
Maine	13	389	0	2	1	0
Maryland	22	1,512	380	23	49	2
Massachusetts	36	2,258	129	34	22	6
Michigan	39	2,880	197	25	46	0
Minnesota	16	1,532	29	4	8	4
Mississippi	17	1,269	281	2	3	1
Missouri	37	1,882	133	21	19	5
Montana	5	347	0	3	2	16
Nebraska	10	845	18	6	11	1
Nevada	5	180	3	8	4	6
New Hampshire	6	270	3	0	0	0
New Jersey	36	3,041	588	143	147	7
New Mexico	13	679	10	133	8	19
New York	94	10,114	2,035	401	260	75
North Carolina	53	2,769	365	12	18	17
North Dakota	5	246	1	3	0	4
Ohio	56	4,813	345	36	49	8
Oklahoma	26	1,327	57	15	22	98
Oregon	14	862	2	11	35	9
Pennsylvania	86	5,958	346	40	66	4
Rhode Island	4	259	30	0	14	0
South Carolina	17	1,267	215	9	7	1
South Dakota	9	365	0	0	2	19
Tennessee	30	2,379	425	9	25	1
Texas	63	6,117	631	635	130	32
Utah	6	507	3	5	5	5
Vermont	5	247	0	2	1	0
Virginia	33	2,511	320	27	67	5
Washington	19	1,337	25	29	84	18
West Virginia	17	1,018	15	3	5	0
Wisconsin	29	2,278	89	15	25	9
Wyoming	6	224	2	6	0	2
American Samoa	0	0	0	0	0	0
Guam	1	25	0	0	19	0
Puerto Rico	15	1,149	4	1,145	0	0
Virgin Islands	2	12	11	0	0	0

¹ National and regional totals exclude American Samoa, Guam, Puerto Rico, and the Virgin Islands.

² Figures represent only those programs responding to this section of the questionnaire.

Table 1a
ESTIMATED NUMBER OF ADMISSIONS OF MINORITY STUDENTS
TO ALL BASIC RN PROGRAMS, BY NLN REGION AND STATE: 1988-1989¹

NLN REGION AND STATE	NUMBER OF PROGRAMS	TOTAL ADMISSIONS	NUMBER OF ADMISSIONS			
			Black	Hispanic	Asian	American Indian
United States	1,457	103,025	11,705	3,287	2,646	545
North Atlantic	335	25,876	3,833	750	601	102
Midwest	423	26,862	1,756	291	367	85
South	483	36,083	5,314	1,195	534	211
West	216	14,204	802	1,051	1,144	147
Alabama	35	2,346	486	15	12	3
Alaska	3	266	14	14	10	7
Arizona	15	996	22	55	15	25
Arkansas	21	1,415	177	8	18	7
California	91	6,507	681	671	752	18
Colorado	12	1,092	18	82	13	4
Connecticut	18	1,200	100	30	12	2
Delaware	7	386	53	3	6	0
District of Columbia	5	315	101	4	11	2
Florida	40	3,849	586	274	79	5
Georgia	33	2,289	447	13	19	3
Hawaii	7	272	7	3	181	2
Idaho	7	332	1	1	4	5
Illinois	70	4,624	535	95	137	4
Indiana	44	2,581	116	31	10	3
Iowa	37	1,672	25	6	13	4
Kansas	32	1,244	51	27	20	1
Kentucky	29	2,093	86	2	13	1
Louisiana	21	1,741	365	12	23	10
Maine	14	514	0	4	1	0
Maryland	23	1,542	388	24	50	2
Massachusetts	41	2,536	158	43	30	6
Michigan	49	3,582	294	36	58	22
Minnesota	20	1,788	51	9	13	5
Mississippi	21	1,584	393	2	4	1
Missouri	44	2,196	160	22	20	5
Montana	5	347	3	4	3	16
Nebraska	13	845	18	6	11	1
Nevada	6	215	4	9	4	8
New Hampshire	9	360	10	2	2	0
New Jersey	38	3,198	623	150	159	8
New Mexico	14	713	12	149	8	21
New York	101	10,638	2,360	464	292	80
North Carolina	59	3,256	460	13	21	22
North Dakota	7	301	1	3	0	4
Ohio	68	5,386	413	41	56	8
Oklahoma	27	1,350	64	17	25	111
Oregon	18	963	2	12	38	10
Pennsylvania	90	6,100	383	43	70	4
Rhode Island	7	382	45	4	17	0
South Carolina	20	1,387	238	9	8	1
South Dakota	10	365	0	0	2	19
Tennessee	34	2,702	492	13	28	1
Texas	68	6,880	757	759	153	39
Utah	7	507	3	5	5	5
Vermont	5	247	0	3	1	0
Virginia	34	2,597	356	30	75	5
Washington	24	1,770	33	40	111	24
West Virginia	18	1,052	19	4	6	0
Wisconsin	29	2,278	92	15	27	9
Wyoming	7	224	2	6	0	2

¹See Appendix for explanation of methodology used for these estimates.

Table 2
ESTIMATED NUMBER OF ADMISSIONS OF MINORITY STUDENTS
TO BASIC BACCALAUREATE PROGRAMS, BY NLN REGION AND STATE:
1988-1989¹

NLN REGION AND STATE	NUMBER OF PROGRAMS	BASIC BACCALAUREATE ADMISSIONS	NUMBER OF ADMISSIONS			
			Black	Hispanic	Asian	American Indian
United States	488	29,042	3,303	892	850	153
North Atlantic	110	6,525	978	186	136	17
Midwest	157	8,439	402	107	164	31
South	165	9,937	1,794	343	245	62
West	56	4,141	129	256	305	43
Alabama	13	853	212	10	10	0
Alaska	1	226	10	13	10	2
Arizona	4	287	4	13	5	14
Arkansas	7	321	65	1	8	1
California	21	1,595	82	162	168	5
Colorado	6	455	10	23	10	3
Connecticut	7	574	20	4	1	2
Delaware	2	122	36	1	3	0
District of Columbia	4	225	91	1	9	1
Florida	13	770	81	68	22	0
Georgia	13	769	224	7	10	2
Hawaii	2	59	7	3	26	1
Idaho	2	87	0	1	2	1
Illinois	27	1,242	112	31	48	0
Indiana	21	1,092	38	18	8	1
Iowa	11	354	4	1	4	0
Kansas	10	428	19	10	9	0
Kentucky	10	662	39	1	11	0
Louisiana	12	1,009	256	10	19	8
Maine	6	311	0	3	0	0
Maryland	6	306	79	5	21	1
Massachusetts	14	785	26	12	13	3
Michigan	14	1,080	97	13	38	11
Minnesota	8	418	4	0	3	0
Mississippi	7	348	116	0	2	1
Missouri	14	557	28	5	6	0
Montana	2	187	3	4	1	7
Nebraska	7	610	16	5	9	1
Nevada	2	75	1	4	3	1
New Hampshire	3	99	5	1	1	0
New Jersey	7	408	70	26	24	0
New Mexico	1	74	0	12	1	4
New York	32	2,115	623	118	54	9
North Carolina	12	587	137	5	11	5
North Dakota	7	301	1	3	0	4
Ohio	21	1,282	55	15	21	5
Oklahoma	11	414	45	6	18	26
Oregon	5	286	0	6	27	1
Pennsylvania	31	1,738	97	17	29	2
Rhode Island	3	92	10	2	2	0
South Carolina	7	342	72	1	6	0
South Dakota	4	125	0	0	1	5
Tennessee	14	729	88	9	5	0
Texas	22	1,732	259	209	66	15
Utah	3	203	2	3	4	1
Vermont	1	56	0	1	0	0
Virginia	10	776	118	10	31	3
Washington	6	558	10	12	48	3
West Virginia	8	319	3	2	5	0
Wisconsin	13	950	28	6	17	4
Wyoming	1	49	0	0	0	0

¹See Appendix for explanation of methodology used for these estimates.

Table 3
ESTIMATED NUMBER OF ADMISSIONS OF MINORITY STUDENTS
TO ASSOCIATE DEGREE PROGRAMS, BY NLN REGION AND STATE: 1988-1989¹

NLN REGION AND STATE	NUMBER OF PROGRAMS	TOTAL ASSOC. DEGREE ADMISSIONS	NUMBER OF ADMISSIONS			
			Black	Hispanic	Asian	American Indian
United States	812	63,973	7,228	2,084	1,549	370
North Atlantic	148	14,792	2,260	424	344	80
Midwest	218	15,652	1,173	153	154	44
South	287	23,753	3,158	777	257	144
West	159	9,776	637	730	794	102
Alabama	20	1,457	272	5	3	3
Alaska	2	40	4	1	0	5
Arizona	11	709	18	42	10	11
Arkansas	12	767	60	4	7	5
California	69	4,625	563	444	539	11
Colorado	6	637	8	59	3	1
Connecticut	6	356	61	16	8	0
Delaware	4	245	17	2	3	0
District of Columbia	1	90	10	3	2	1
Florida	26	2,980	485	177	54	5
Georgia	19	1,432	213	6	9	1
Hawaii	5	213	0	0	155	1
Idaho	5	245	1	0	2	4
Illinois	35	3,024	405	55	67	1
Indiana	20	1,389	78	11	2	2
Iowa	21	1,111	21	5	5	4
Kansas	21	792	31	16	11	0
Kentucky	19	1,431	47	1	2	1
Louisiana	6	509	68	1	1	1
Maine	8	203	0	1	1	0
Maryland	14	1,079	274	19	29	1
Massachusetts	19	1,361	117	27	15	2
Michigan	32	2,346	170	20	20	11
Minnesota	12	1,370	47	9	10	5
Mississippi	14	1,236	277	2	2	0
Missouri	22	1,025	100	8	8	2
Montana	3	160	0	0	2	9
Nebraska	5	184	1	1	0	0
Nevada	4	140	3	5	1	7
New Hampshire	6	261	6	1	1	0
New Jersey	14	1,415	179	36	42	7
New Mexico	13	639	12	137	7	17
New York	60	8,013	1,657	319	228	68
North Carolina	43	2,414	302	7	10	16
North Dakota	0	0	0	0	0	0
Ohio	30	2,968	263	21	23	1
Oklahoma	16	936	19	11	7	85
Oregon	13	677	2	6	11	9
Pennsylvania	24	2,398	183	17	29	2
Rhode Island	2	259	30	0	14	0
South Carolina	13	1,045	166	8	2	1
South Dakota	5	217	0	0	0	13
Tennessee	16	1,462	302	4	19	1
Texas	44	4,948	488	513	81	24
Utah	4	304	1	2	1	4
Vermont	4	191	0	2	1	0
Virginia	16	1,406	171	18	30	0
Washington	18	1,212	23	28	63	21
West Virginia	9	651	14	1	1	0
Wisconsin	15	1,224	57	7	8	5
Wyoming	6	175	2	6	0	2

¹See Appendix for explanation of methodology used for these estimates.

Table 4
ESTIMATED NUMBER OF ADMISSIONS OF MINORITY STUDENTS
TO DIPLOMA PROGRAMS, BY NLN REGION AND STATE: 1988-1989¹

NLN REGION AND STATE	NUMBER OF PROGRAMS	TOTAL DIPLOMA ADMISSIONS	NUMBER OF ADMISSIONS			
			Black	Hispanic	Asian	American Indian
United States	157	10,010	1,175	310	247	22
North Atlantic	77	4,559	596	139	120	5
Midwest	48	2,771	181	31	49	10
South	31	2,393	362	75	33	5
West	1	287	36	65	45	2
Alabama	2	36	2	0	0	0
Alaska	0	0	0	0	0	0
Arizona	0	0	0	0	0	0
Arkansas	2	327	52	3	3	1
California	1	287	36	65	45	2
Colorado	0	0	0	0	0	0
Connecticut	5	270	19	10	3	0
Delaware	1	19	0	0	0	0
District of Columbia	0	0	0	0	0	0
Florida	1	99	20	29	3	0
Georgia	1	88	10	0	0	0
Hawaii	0	0	0	0	0	0
Idaho	0	0	0	0	0	0
Illinois	8	358	18	9	22	3
Indiana	3	100	0	2	0	0
Iowa	5	207	0	0	4	0
Kansas	1	24	1	1	0	1
Kentucky	0	0	0	0	0	0
Louisiana	3	223	41	1	3	1
Maine	0	0	0	0	0	0
Maryland	3	157	35	0	0	0
Massachusetts	8	390	15	4	2	1
Michigan	3	154	27	3	0	0
Minnesota	0	0	0	0	0	0
Mississippi	0	0	0	0	0	0
Missouri	8	614	32	9	6	3
Montana	0	0	0	0	0	0
Nebraska	1	51	1	0	2	0
Nevada	0	0	0	0	0	0
New Hampshire	0	0	0	0	0	0
New Jersey	17	1,375	374	88	92	1
New Mexico	0	0	0	0	0	0
New York	9	510	81	27	10	3
North Carolina	4	255	21	1	0	1
North Dakota	0	0	0	0	0	0
Ohio	17	1,136	95	5	12	2
Oklahoma	0	0	0	0	0	0
Oregon	0	0	0	0	0	0
Pennsylvania	35	1,964	103	9	12	0
Rhode Island	2	31	4	1	1	0
South Carolina	0	0	0	0	0	0
South Dakota	1	23	0	0	1	1
Tennessee	4	511	102	0	4	0
Texas	2	200	10	38	6	0
Utah	0	0	0	0	0	0
Vermont	0	0	0	0	0	0
Virginia	8	415	67	2	14	2
Washington	0	0	0	0	0	0
West Virginia	1	82	2	1	0	0
Wisconsin	1	104	7	2	2	0
Wyoming	0	0	0	0	0	0

¹See Appendix for explanation of methodology used for these estimates.

Table 5
ESTIMATED NUMBER OF ENROLLMENTS OF MINORITY STUDENTS
IN ALL BASIC RN PROGRAMS, BY NLN REGION AND STATE: 1989¹

NLN REGION AND STATE	NUMBER OF PROGRAMS	BASIC ENROLLMENTS	NUMBER OF ENROLLMENTS			
			Black	Hispanic	Asian	American Indian
United States	1,457	201,458	20,789	6,046	5,201	1,064
North Atlantic	335	53,315	6,363	1,468	1,241	193
Midwest	423	53,665	3,233	580	733	186
South	483	68,882	10,199	2,276	914	394
West	216	25,596	994	1,722	2,313	291
Alabama	35	4,462	953	22	24	10
Alaska	3	274	10	5	6	15
Arizona	15	1,765	33	124	43	43
Arkansas	21	2,627	346	14	28	10
California	91	12,003	812	1,179	1,570	74
Colorado	12	1,592	29	101	22	18
Connecticut	18	2,371	169	56	28	1
Delaware	7	879	96	7	10	0
District of Columbia	5	704	205	8	26	3
Florida	40	6,371	865	504	146	12
Georgia	33	3,942	652	19	30	7
Hawaii	7	659	3	4	399	1
Idaho	7	710	2	4	6	5
Illinois	70	8,532	983	195	313	10
Indiana	44	6,219	253	67	27	8
Iowa	37	3,126	14	14	22	3
Kansas	32	2,272	71	40	28	5
Kentucky	29	4,250	134	6	26	2
Louisiana	21	7,163	2,115	50	65	43
Maine	14	1,153	4	4	1	6
Maryland	23	2,838	603	43	77	6
Massachusetts	41	6,232	347	93	76	10
Michigan	49	7,219	731	71	115	34
Minnesota	20	2,774	67	16	30	16
Mississippi	21	2,980	703	7	9	6
Missouri	44	3,943	284	37	28	9
Montana	5	896	1	3	2	31
Nebraska	13	1,603	38	13	13	4
Nevada	6	452	17	11	17	13
New Hampshire	9	905	28	7	6	1
New Jersey	38	5,959	995	281	386	3
New Mexico	14	1,072	12	181	11	28
New York	101	19,414	3,774	911	562	150
North Carolina	59	5,852	756	29	34	42
North Dakota	7	738	3	11	2	28
Ohio	68	11,464	655	79	108	16
Oklahoma	27	2,562	123	27	50	185
Oregon	18	1,747	12	21	66	17
Pennsylvania	90	14,159	671	87	127	16
Rhode Island	7	1,086	73	13	19	3
South Carolina	20	2,931	515	14	24	4
South Dakota	10	1,125	2	0	5	32
Tennessee	34	4,981	671	16	43	2
Texas	68	11,394	1,042	1,482	219	48
Utah	7	1,003	2	5	7	10
Vermont	5	453	1	1	0	0
Virginia	34	4,577	683	33	129	14
Washington	24	2,945	57	75	160	33
West Virginia	18	1,952	38	10	10	3
Wisconsin	29	4,650	132	37	42	21
Wyoming	7	478	4	9	4	3

¹See Appendix for explanation of methodology used for these estimates.

Table 6
ESTIMATED NUMBER OF ENROLLMENTS OF MINORITY STUDENTS
IN BASIC BACCALAUREATE PROGRAMS, BY NLN REGION AND STATE: 1989¹

NLN REGION AND STATE	NUMBER OF PROGRAMS	BASIC BACCALAUREATE ENROLLMENTS	NUMBER OF ENROLLMENTS			
			Black	Hispanic	Asian	American Indian
United States	488	74,865	8,937	2,220	2,338	460
North Atlantic	110	17,742	2,243	550	422	52
Midwest	157	21,916	1,225	311	405	102
South	165	25,846	5,213	788	507	160
West	56	9,361	256	571	1,004	146
Alabama	13	2,040	516	17	18	5
Alaska	1	199	6	4	6	10
Arizona	4	546	9	48	17	29
Arkansas	7	672	188	3	10	3
California	21	3,990	180	378	633	44
Colorado	6	756	11	38	20	7
Connecticut	7	988	46	13	12	0
Delaware	2	419	69	2	7	0
District of Columbia	4	552	189	4	22	2
Florida	13	1,494	172	146	51	1
Georgia	13	1,215	344	5	17	5
Hawaii	2	284	3	4	178	1
Idaho	2	223	0	4	3	2
Illinois	27	3,028	377	101	144	5
Indiana	21	3,321	182	49	19	5
Iowa	11	788	5	8	6	1
Kansas	10	940	36	22	22	2
Kentucky	10	1,846	80	6	21	0
Louisiana	12	5,127	1,776	36	54	26
Maine	6	797	3	3	1	6
Maryland	6	819	195	10	39	2
Massachusetts	14	2,821	118	54	41	5
Michigan	14	2,867	247	28	83	19
Minnesota	8	895	5	4	4	3
Mississippi	7	995	317	1	7	5
Missouri	14	1,035	58	11	8	2
Montana	2	621	1	3	1	20
Nebraska	7	1,295	30	11	11	4
Nevada	2	281	8	7	14	6
New Hampshire	3	352	20	5	5	1
New Jersey	7	1,251	213	77	97	2
New Mexico	1	174	1	39	3	8
New York	32	4,603	1,270	341	156	26
North Carolina	12	1,409	297	8	14	9
North Dakota	7	738	3	11	2	28
Ohio	21	3,789	219	42	69	9
Oklahoma	11	947	70	14	44	60
Oregon	5	666	9	12	49	8
Pennsylvania	31	5,330	268	38	69	7
Rhode Island	3	461	46	12	12	3
South Carolina	7	1,049	201	5	15	2
South Dakota	4	632	0	0	3	10
Tennessee	14	1,662	164	9	16	2
Texas	22	4,238	573	512	132	33
Utah	3	415	2	5	7	1
Vermont	1	168	1	1	0	0
Virginia	10	1,611	308	9	61	5
Washington	6	971	24	26	70	9
West Virginia	8	722	12	7	8	2
Wisconsin	13	2,588	63	24	34	14
Wyoming	1	235	2	3	3	1

¹See Appendix for explanation of methodology used for these estimates.

Table 7
ESTIMATED NUMBER OF ENROLLMENTS OF MINORITY STUDENTS
IN ASSOCIATE DEGREE PROGRAMS, BY NLN REGION AND STATE: 1989¹

NLN REGION AND STATE	NUMBER OF PROGRAMS	TOTAL ASSOC. DEGREE ENROLLMENTS	NUMBER OF ENROLLMENTS			
			Black	Hispanic	Asian	American Indian
United States	812	106,175	9,929	3,322	2,411	569
North Atlantic	148	25,932	3,247	708	555	129
Midwest	218	26,084	1,698	205	251	71
South	287	38,281	4,290	1,339	356	227
West	159	15,878	694	1,070	1,249	142
Alabama	20	2,363	433	5	6	5
Alaska	2	75	4	1	0	5
Arizona	11	1,219	24	76	26	14
Arkansas	12	1,225	79	8	11	7
California	69	7,656	587	720	877	27
Colorado	6	836	18	63	2	11
Connecticut	6	761	84	26	8	0
Delaware	4	417	27	5	2	0
District of Columbia	1	152	14	4	3	1
Florida	26	4,672	656	286	91	10
Georgia	19	2,584	294	14	13	2
Hawaii	5	375	0	0	221	0
Idaho	5	487	2	0	3	3
Illinois	35	4,835	576	74	125	4
Indiana	20	2,695	71	16	7	2
Iowa	21	1,808	8	4	15	1
Kansas	21	1,269	34	17	6	2
Kentucky	19	2,404	54	0	5	2
Louisiana	6	1,510	265	5	7	15
Maine	8	356	1	1	0	0
Maryland	14	1,714	354	33	37	4
Massachusetts	19	2,560	185	32	25	3
Michigan	32	4,009	428	36	32	15
Minnesota	12	1,879	59	12	25	13
Mississippi	14	1,985	386	6	2	1
Missouri	22	1,664	161	7	10	3
Montana	3	275	0	0	1	11
Nebraska	5	232	7	2	1	0
Nevada	4	171	9	4	3	7
New Hampshire	6	553	10	2	1	0
New Jersey	14	2,311	296	78	86	1
New Mexico	13	898	11	142	8	20
New York	60	13,710	2,398	535	384	118
North Carolina	43	3,877	353	17	18	32
North Dakota	0	0	0	0	0	0
Ohio	30	5,332	296	25	23	5
Oklahoma	16	1,615	53	13	6	125
Oregon	13	1,081	4	9	17	9
Pennsylvania	24	4,280	206	25	37	6
Rhode Island	2	547	26	0	9	0
South Carolina	13	1,882	314	9	9	2
South Dakota	5	445	1	0	0	19
Tennessee	16	2,476	334	7	24	0
Texas	44	6,830	459	916	81	15
Utah	4	588	0	0	0	9
Vermont	4	285	0	0	0	0
Virginia	16	2,075	233	18	44	6
Washington	18	1,974	33	49	90	24
West Virginia	9	1,069	23	2	2	1
Wisconsin	15	1,916	57	12	7	7
Wyoming	6	243	2	6	1	2

¹See Appendix for explanation of methodology used for these estimates.

Table 8
ESTIMATED NUMBER OF ENROLLMENTS OF MINORITY STUDENTS
IN DIPLOMA PROGRAMS, BY NLN REGION AND STATE: 1989¹

NLN REGION AND STATE	NUMBER OF PROGRAMS	TOTAL DIPLOMA ENROLLMENTS	NUMBER OF ENROLLMENTS			
			Black	Hispanic	Asian	American Indian
United States	157	20,418	1,924	504	452	33
North Atlantic	77	9,641	877	210	266	10
Midwest	48	5,665	306	64	75	13
South	31	4,755	696	149	51	7
West	1	357	45	81	60	3
Alabama	2	59	5	0	0	0
Alaska	0	0	0	0	0	0
Arizona	0	0	0	0	0	0
Arkansas	2	730	79	3	7	0
California	1	357	45	81	60	3
Colorado	0	0	0	0	0	0
Connecticut	5	622	39	17	8	1
Delaware	1	43	0	0	1	0
District of Columbia	0	0	0	0	0	0
Florida	1	205	37	72	4	1
Georgia	1	143	14	0	0	0
Hawaii	0	0	0	0	0	0
Idaho	0	0	0	0	0	0
Illinois	8	669	30	20	44	1
Indiana	3	203	0	2	0	1
Iowa	5	530	1	2	1	1
Kansas	1	63	1	1	0	1
Kentucky	0	0	0	0	0	0
Louisiana	3	526	74	9	4	2
Maine	0	0	0	0	0	0
Maryland	3	305	54	0	1	0
Massachusetts	8	851	43	7	10	1
Michigan	3	343	56	7	0	0
Minnesota	0	0	0	0	0	0
Mississippi	0	0	0	0	0	0
Missouri	8	1,244	65	19	10	4
Montana	0	0	0	0	0	0
Nebraska	1	76	0	0	1	0
Nevada	0	0	0	0	0	0
New Hampshire	0	0	0	0	0	0
New Jersey	17	2,397	486	126	203	0
New Mexico	0	0	0	0	0	0
New York	9	1,101	104	34	22	5
North Carolina	4	566	106	4	2	1
North Dakota	0	0	0	0	0	0
Ohio	17	2,343	140	12	16	2
Oklahoma	0	0	0	0	0	0
Oregon	0	0	0	0	0	0
Pennsylvania	35	4,549	197	24	21	3
Rhode Island	2	78	8	2	1	0
South Carolina	0	0	0	0	0	0
South Dakota	1	48	1	0	2	3
Tennessee	4	843	173	0	3	0
Texas	2	326	10	54	6	0
Utah	0	0	0	0	0	0
Vermont	0	0	0	0	0	0
Virginia	8	891	142	6	24	3
Washington	0	0	0	0	0	0
West Virginia	1	161	2	1	0	0
Wisconsin	1	146	12	1	1	0
Wyoming	0	0	0	0	0	0

¹See Appendix for explanation of methodology used for these estimates.

Table 9
ESTIMATED NUMBER OF GRADUATIONS OF MINORITY STUDENTS
FROM ALL BASIC RN PROGRAMS, BY NLN REGION AND STATE: 1988-1989¹

NLN REGION AND STATE	NUMBER OF PROGRAMS	BASIC GRADUATIONS	NUMBER OF GRADUATIONS			
			Black	Hispanic	Asian	American Indian
United States	1,457	61,660	5,698	1,892	1,190	317
North Atlantic	335	15,054	1,849	378	211	43
Midwest	423	17,264	853	145	164	77
South	483	19,768	2,441	615	186	95
West	216	9,574	555	744	619	102
Alabama	35	1,354	241	4	6	0
Alaska	3	64	2	1	2	1
Arizona	15	784	16	78	14	20
Arkansas	21	687	60	2	0	6
California	91	4,716	453	514	419	19
Colorado	12	524	10	32	2	1
Connecticut	18	663	34	9	4	0
Delaware	7	267	21	2	1	0
District of Columbia	5	231	64	5	5	1
Florida	40	2,504	292	161	28	6
Georgia	33	1,206	164	3	7	1
Hawaii	7	170	1	1	107	0
Idaho	7	214	0	0	1	3
Illinois	70	2,822	244	50	71	4
Indiana	44	1,734	75	11	8	1
Iowa	37	1,173	9	1	5	3
Kansas	32	812	36	19	12	6
Kentucky	29	1,193	50	0	5	0
Louisiana	21	994	176	16	6	1
Maine	14	310	0	0	0	2
Maryland	23	920	148	10	16	1
Massachusetts	41	1,685	96	17	7	0
Michigan	49	2,701	213	26	22	12
Minnesota	20	1,141	12	5	2	14
Mississippi	21	799	169	2	3	0
Missouri	44	1,358	74	9	7	4
Montana	5	208	4	1	1	18
Nebraska	13	321	2	2	1	0
Nevada	6	149	4	7	0	3
New Hampshire	9	275	8	3	1	0
New Jersey	38	1,570	183	64	49	7
New Mexico	14	418	8	80	2	9
New York	101	5,712	1,213	246	104	27
North Carolina	59	1,760	224	7	7	7
North Dakota	7	202	0	1	2	7
Ohio	68	3,459	180	15	27	6
Oklahoma	27	902	36	12	7	61
Oregon	18	643	5	8	17	7
Pennsylvania	90	3,835	192	28	31	6
Rhode Island	7	393	38	4	9	0
South Carolina	20	863	138	5	6	0
South Dakota	10	322	0	0	0	15
Tennessee	34	1,296	175	4	4	0
Texas	68	3,320	321	376	67	10
Utah	7	477	31	13	9	3
Vermont	5	113	0	0	0	0
Virginia	34	1,356	233	12	22	2
Washington	24	1,056	20	8	45	15
West Virginia	18	614	14	1	2	0
Wisconsin	29	1,219	8	6	7	5
Wyoming	7	151	1	1	0	3

¹See Appendix for explanation of methodology used for these estimates.

Table 10
ESTIMATED NUMBER OF GRADUATIONS OF MINORITY STUDENTS
FROM BASIC BACCALAUREATE PROGRAMS, BY NLN REGION AND STATE:
1988-1989¹

NLN REGION AND STATE	NUMBER OF PROGRAMS	BASIC BACCALAUREATE GRADUATIONS	NUMBER OF GRADUATIONS			
			Black	Hispanic	Asian	American Indian
United States	488	18,997	1,765	575	435	113
North Atlantic	110	4,802	632	127	89	9
Midwest	157	5,756	198	54	77	35
South	165	5,804	833	220	94	28
West	56	2,635	102	174	175	41
Alabama	13	511	95	1	5	0
Alaska	1	34	0	1	2	1
Arizona	4	230	0	37	7	11
Arkansas	7	152	8	1	0	0
California	21	1,163	80	111	102	8
Colorado	6	179	6	7	2	0
Connecticut	7	260	8	2	2	0
Delaware	2	105	4	0	0	0
District of Columbia	4	176	59	3	4	1
Florida	13	503	40	54	6	0
Georgia	13	326	47	0	5	1
Hawaii	2	40	1	0	18	0
Idaho	2	32	0	0	0	1
Illinois	27	943	72	17	30	2
Indiana	21	701	17	4	1	0
Iowa	11	254	5	0	4	1
Kansas	10	281	7	9	7	3
Kentucky	10	342	11	0	4	0
Louisiana	12	505	123	6	3	0
Maine	6	159	0	0	0	2
Maryland	6	282	47	4	7	1
Massachusetts	14	631	24	8	5	0
Michigan	14	862	44	7	12	8
Minnesota	8	322	0	1	0	7
Mississippi	7	208	58	1	2	0
Missouri	14	333	6	3	2	0
Montana	2	139	1	1	1	12
Nebraska	7	192	2	2	1	0
Nevada	2	34	0	1	0	1
New Hampshire	3	86	5	2	1	0
New Jersey	7	347	51	17	15	0
New Mexico	1	50	1	9	0	1
New York	32	1,468	412	84	37	5
North Carolina	12	440	83	2	1	4
North Dakota	7	202	0	1	2	7
Ohio	21	1,006	38	6	16	4
Oklahoma	11	327	15	7	4	18
Oregon	5	221	4	2	14	3
Pennsylvania	31	1,370	58	7	21	1
Rhode Island	3	154	11	4	4	0
South Carolina	7	279	59	0	4	0
South Dakota	4	112	0	0	0	1
Tennessee	14	336	27	2	0	0
Texas	22	1,050	129	137	44	4
Utah	3	146	0	3	3	1
Vermont	1	46	0	0	0	0
Virginia	10	426	90	5	8	0
Washington	6	333	9	2	26	2
West Virginia	8	117	1	0	1	0
Wisconsin	13	548	7	4	2	2
Wyoming	1	34	0	0	0	0

¹See Appendix for explanation of methodology used for these estimates.

Table 11
ESTIMATED NUMBER OF GRADUATIONS OF MINORITY STUDENTS
FROM ASSOCIATE DEGREE PROGRAMS, BY NLN REGION AND STATE:
1988-1989¹

NLN REGION AND STATE	NUMBER OF PROGRAMS	TOTAL ASSOC. DEGREE GRADUATIONS	NUMBER OF GRADUATIONS			
			Black	Hispanic	Asian	American Indian
United States	812	37,837	3,588	1,170	675	197
North Atlantic	148	8,101	1,088	190	94	34
Midwest	218	10,050	598	81	72	38
South	287	12,884	1,468	358	84	65
West	159	6,802	434	541	425	60
Alabama	20	825	144	3	1	0
Alaska	2	30	2	0	0	0
Arizona	11	554	16	41	7	9
Arkansas	12	400	23	0	0	5
California	69	3,416	353	374	299	10
Colorado	6	345	4	25	0	1
Connecticut	6	227	22	5	2	0
Delaware	4	153	17	2	1	0
District of Columbia	1	55	5	2	1	0
Florida	26	1,944	245	89	22	6
Georgia	19	826	108	3	2	0
Hawaii	5	130	0	1	89	0
Idaho	5	182	0	0	1	2
Illinois	35	1,724	165	31	33	1
Indiana	20	952	58	6	7	1
Iowa	21	807	4	1	1	2
Kansas	21	521	29	10	5	3
Kentucky	19	851	39	0	1	0
Louisiana	6	295	25	5	2	1
Maine	8	151	0	0	0	0
Maryland	14	564	99	6	9	0
Massachusetts	19	890	66	6	1	0
Michigan	32	1,727	158	17	10	4
Minnesota	12	819	12	4	2	7
Mississippi	14	591	111	1	1	0
Missouri	22	686	53	2	2	2
Montana	3	69	3	0	0	6
Nebraska	5	72	0	0	0	0
Nevada	4	115	4	6	0	2
New Hampshire	6	189	3	1	0	0
New Jersey	14	783	68	25	16	7
New Mexico	13	368	7	71	2	8
New York	60	4,025	785	135	61	22
North Carolina	43	1,254	137	5	6	3
North Dakota	0	0	0	0	0	0
Ohio	30	1,896	118	8	7	2
Oklahoma	16	575	21	5	3	43
Oregon	13	422	1	6	3	4
Pennsylvania	24	1,347	96	14	7	5
Rhode Island	2	214	26	0	5	0
South Carolina	13	584	79	5	2	0
South Dakota	5	193	0	0	0	13
Tennessee	16	824	119	2	4	0
Texas	44	2,161	186	226	18	6
Utah	4	331	32	10	5	2
Vermont	4	67	0	0	0	0
Virginia	16	775	121	7	12	1
Washington	18	723	11	6	19	13
West Virginia	9	415	11	1	1	0
Wisconsin	15	653	1	2	5	3
Wyoming	6	117	1	1	0	3

¹See Appendix for explanation of methodology used for these estimates

Table 12
ESTIMATED NUMBER OF GRADUATIONS OF MINORITY STUDENTS
FROM DIPLOMA PROGRAMS, BY NLN REGION AND STATE: 1988-1989¹

NLN REGION AND STATE	NUMBER OF PROGRAMS	TOTAL DIPLOMA GRADUATIONS	NUMBER OF GRADUATIONS			
			Black	Hispanic	Asian	American Indian
United States	157	4,826	347	137	69	7
North Atlantic	77	2,151	130	61	28	0
Midwest	48	1,458	57	10	15	4
South	31	1,080	140	37	8	2
West	1	137	20	29	18	1
Alabama	2	18	2	0	0	0
Alaska	0	0	0	0	0	0
Arizona	0	0	0	0	0	0
Arkansas	2	135	29	1	0	1
California	1	137	20	29	18	1
Colorado	0	0	0	0	0	0
Connecticut	5	176	4	2	0	0
Delaware	1	9	0	0	0	0
District of Columbia	0	0	0	0	0	0
Florida	1	57	7	18	0	0
Georgia	1	54	9	0	0	0
Hawaii	0	0	0	0	0	0
Idaho	0	0	0	0	0	0
Illinois	8	155	7	2	8	1
Indiana	3	81	0	1	0	0
Iowa	5	112	0	0	0	0
Kansas	1	10	0	0	0	0
Kentucky	0	0	0	0	0	0
Louisiana	3	194	28	5	1	0
Maine	0	0	0	0	0	0
Maryland	3	74	2	0	0	0
Massachusetts	6	164	6	3	1	0
Michigan	3	112	11	2	0	0
Minnesota	0	0	0	0	0	0
Mississippi	0	0	0	0	0	0
Missouri	8	339	15	4	3	2
Montana	0	0	0	0	0	0
Nebraska	1	57	0	0	0	0
Nevada	0	0	0	0	0	0
New Hampshire	0	0	0	0	0	0
New Jersey	17	440	65	22	18	0
New Mexico	0	0	0	0	0	0
New York	9	219	16	27	6	0
North Carolina	4	66	4	0	0	0
North Dakota	0	0	0	0	0	0
Ohio	17	557	24	1	4	0
Oklahoma	0	0	0	0	0	0
Oregon	0	0	0	0	0	0
Pennsylvania	35	1,118	38	7	3	0
Rhode Island	2	25	1	0	0	0
South Carolina	0	0	0	0	0	0
South Dakota	1	17	0	0	0	1
Tennessee	4	136	29	0	0	0
Texas	2	109	6	13	5	0
Utah	0	0	0	0	0	0
Vermont	0	0	0	0	0	0
Virginia	8	155	22	0	2	1
Washington	0	0	0	0	0	0
West Virginia	1	82	2	0	0	0
Wisconsin	1	18	0	0	0	0
Wyoming	0	0	0	0	0	0

¹See Appendix for explanation of methodology used for these estimates.

Table 13
ESTIMATED NUMBER OF ADMISSIONS OF MINORITY STUDENTS TO LPN/LVN
PROGRAMS, BY NLN REGION AND STATE: 1988-1989¹

NLN REGION AND STATE	NUMBER OF PROGRAMS	TOTAL LPN/LVN ADMISSIONS	NUMBER OF ADMISSIONS			
			Black	Hispanic	Asian	American Indian
United States	1,048	47,602	9,149	2,010	962	707
North Atlantic	180	8,972	1,784	234	78	32
Midwest	236	11,332	1,856	175	130	77
South	468	21,087	4,828	1,028	149	436
West	164	6,211	681	573	605	162
Alabama	22	1,909	524	20	16	0
Alaska	0	0	0	0	0	0
Arizona	9	342	25	54	7	35
Arkansas	27	870	129	0	7	2
California	73	3,538	576	403	467	73
Colorado	14	407	18	44	2	2
Connecticut	11	428	56	11	0	0
Delaware	3	113	18	0	0	0
District of Columbia	2	107	29	3	2	2
Florida	36	2,710	822	132	31	6
Georgia	41	1,900	646	14	17	3
Hawaii	4	110	0	0	79	2
Idaho	5	139	1	6	1	2
Illinois	32	1,662	728	88	85	2
Indiana	19	1,170	107	15	3	1
Iowa	25	930	16	1	11	8
Kansas	16	680	53	9	3	6
Kentucky	17	930	51	86	0	0
Louisiana	34	1,823	571	35	3	80
Maine	5	270	4	0	2	6
Maryland	15	321	83	2	0	0
Massachusetts	21	817	114	17	4	0
Michigan	26	1,040	406	2	2	6
Minnesota	26	1,691	143	27	16	24
Mississippi	14	621	269	0	0	1
Missouri	32	1,092	164	2	4	6
Montana	5	241	4	4	0	13
Nebraska	9	568	5	14	1	4
Nevada	3	69	7	3	2	2
New Hampshire	2	124	14	4	1	1
New Jersey	25	1,448	341	81	29	2
New Mexico	7	136	4	37	4	3
New York	57	3,441	1,012	106	33	17
North Carolina	27	596	140	4	3	1
North Dakota	3	20	0	0	0	20
Ohio	41	2,176	191	10	3	0
Oklahoma	27	893	82	8	3	122
Oregon	10	0	0	0	0	0
Pennsylvania	50	2,136	196	12	7	4
Rhode Island	1	0	0	0	0	0
South Carolina	21	727	152	10	1	26
South Dakota	2	24	0	0	0	0
Tennessee	22	1,378	128	0	5	6
Texas	97	4,408	737	702	56	131
Utah	6	444	2	9	4	20
Vermont	3	88	0	0	0	0
Virginia	49	1,426	483	15	7	0
Washington	22	722	44	13	39	9
West Virginia	19	575	11	0	0	58
Wisconsin	5	279	43	7	2	0
Wyoming	6	63	0	0	0	1

¹ See Appendix for explanation of methodology used for these estimates

Table 14
ESTIMATED NUMBER OF ENROLLMENTS OF MINORITY STUDENTS TO LPN/LVN
PROGRAMS, BY NLN REGION AND STATE: 1989¹

NLN REGION AND STATE	NUMBER OF PROGRAMS	TOTAL LPN/LVN ENROLLMENTS	NUMBER OF ENROLLMENTS			
			Black	Hispanic	Asian	American Indian
United States	1,048	46,720	8,205	1,980	952	572
North Atlantic	180	9,595	1,864	282	90	46
Midwest	236	11,370	1,658	253	85	67
South	468	19,242	3,933	897	147	374
West	164	6,513	750	548	630	85
Alabama	22	1,578	336	4	8	8
Alaska	0	0	0	0	0	0
Arizona	9	360	28	41	7	2
Arkansas	27	837	132	1	1	6
California	73	4,013	637	406	568	32
Colorado	14	419	13	41	1	2
Connecticut	11	294	23	1	0	0
Delaware	3	149	49	0	0	0
District of Columbia	2	110	41	4	1	2
Florida	36	2,299	679	91	30	5
Georgia	41	1,380	451	20	20	0
Hawaii	4	112	19	5	2	2
Idaho	5	117	0	5	0	0
Illinois	32	1,697	683	115	38	2
Indiana	19	1,233	122	19	2	1
Iowa	25	853	16	0	5	8
Kansas	16	610	36	51	2	2
Kentucky	17	842	39	58	0	0
Louisiana	34	1,585	518	25	1	54
Maine	5	254	0	0	0	6
Maryland	15	397	114	4	2	0
Massachusetts	21	813	72	5	5	0
Michigan	26	1,034	271	3	1	4
Minnesota	26	1,768	166	35	26	17
Mississippi	14	566	213	0	0	1
Missouri	32	1,086	153	5	3	5
Montana	5	229	4	4	1	8
Nebraska	9	465	1	11	1	5
Nevada	3	73	4	4	0	0
New Hampshire	2	141	12	4	2	1
New Jersey	25	1,869	505	119	28	17
New Mexico	7	137	2	34	5	1
New York	57	3,717	985	139	43	17
North Carolina	27	51	112	2	1	8
North Dakota	3	2	0	0	0	21
Ohio	41	2,316	183	10	5	0
Oklahoma	27	890	72	14	3	116
Oregon	10	0	0	0	0	0
Pennsylvania	50	2,148	177	10	10	3
Rhode Island	1	0	0	0	0	0
South Carolina	21	755	116	41	1	18
South Dakota	2	66	0	0	0	2
Tennessee	22	1,118	78	0	0	8
Texas	97	4,070	570	630	50	101
Utah	6	376	3	6	4	12
Vermont	3	100	0	0	1	0
Virginia	49	1,835	495	6	30	0
Washington	22	605	40	2	42	6
West Virginia	19	509	8	1	0	49
Wisconsin	5	221	27	4	2	0
Wyoming	6	72	0	0	0	0

¹ See Appendix for explanation of methodology used for these estimates.

Table 15
ESTIMATED NUMBER OF GRADUATIONS OF MINORITY STUDENTS
FROM LPN/LVN PROGRAMS, BY NLN REGION AND STATE: 1988-1989¹

NLN REGION AND STATE	NUMBER OF PROGRAMS	TOTAL LPN/LVN GRADUATIONS	NUMBER OF GRADUATIONS			
			Black	Hispanic	Asian	American Indian
United States	1,048	30,368	4,502	1,330	581	345
North Atlantic	180	5,595	909	101	60	10
Midwest	236	7,536	882	200	71	18
South	468	12,236	2,342	545	78	254
West	164	5,001	369	484	372	63
Alabama	22	830	206	9	3	1
Alaska	0	0	0	0	0	0
Arizona	9	301	12	32	4	14
Arkansas	27	606	79	0	1	2
California	73	2,265	316	350	256	17
Colorado	14	395	5	47	1	0
Connecticut	11	217	39	15	0	0
Delaware	3	59	7	0	0	0
District of Columbia	2	54	16	2	2	1
Florida	36	1,522	427	56	14	2
Georgia	41	933	232	2	2	1
Hawaii	4	77	0	0	50	2
Idaho	5	107	1	2	1	2
Illinois	32	1,176	357	155	49	2
Indiana	19	730	45	7	2	1
Iowa	25	632	5	1	2	5
Kansas	16	510	30	3	1	2
Kentucky	17	582	32	55	0	0
Louisiana	34	841	212	9	1	38
Maine	5	182	4	0	1	2
Maryland	15	211	61	0	1	0
Massachusetts	21	629	74	11	6	0
Michigan	26	787	190	3	2	1
Minnesota	26	914	56	7	9	5
Mississippi	14	343	122	19	0	1
Missouri	32	726	79	3	3	2
Montana	5	128	2	4	1	11
Nebraska	9	353	3	13	0	0
Nevada	3	49	0	4	0	4
New Hampshire	2	32	4	1	0	0
New Jersey	25	830	183	25	21	0
New Mexico	7	130	4	30	4	3
New York	57	1,972	464	36	19	3
North Carolina	27	367	63	4	0	4
North Dakota	3	38	0	0	0	0
Ohio	41	1,443	113	4	3	0
Oklahoma	27	693	61	3	2	97
Oregon	10	289	0	2	2	1
Pennsylvania	50	1,506	111	9	10	3
Rhode Island	1	48	7	2	1	1
South Carolina	21	359	67	5	0	7
South Dakota	2	21	0	0	0	0
Tennessee	22	781	52	0	2	4
Texas	97	2,998	467	381	47	61
Utah	6	328	1	9	4	4
Vermont	3	66	0	0	0	0
Virginia	49	778	252	2	5	0
Washington	22	830	28	2	48	4
West Virginia	19	392	9	0	0	36
Wisconsin	5	206	4	4	0	0
Wyoming	6	102	0	2	1	1

¹ See Appendix for explanation of methodology used for these estimates.

Table 16
ADMISSIONS OF MEN TO ALL BASIC RN PROGRAMS,
BY NLN REGION: 1988-1989

NLN REGION	NUMBER OF PROGRAMS REPORTING	TOTAL ADMISSIONS	MEN	
			Number	Percent
ALL REPORTING RN PROGRAMS				
All regions	1,272	92,184	7,558	8.2
North Atlantic	307	24,259	1,982	8.2
Midwest	361	23,515	1,653	7.0
South	433	32,480	2,736	8.4
West	171	11,930	1,187	9.9
BACCALAUREATE PROGRAMS				
All regions	429	25,930	1,820	7.0
North Atlantic	96	5,575	238	4.3
Midwest	132	7,454	498	6.7
South	151	9,153	730	8.0
West	50	3,748	354	9.4
ASSOCIATE DEGREE PROGRAMS				
All regions	695	56,695	4,857	8.6
North Atlantic	138	14,276	1,315	9.2
Midwest	186	13,590	958	7.0
South	251	20,934	1,791	8.6
West	120	7,895	793	10.0
DIPLOMA PROGRAMS				
All regions	148	9,559	881	9.2
North Atlantic	73	4,408	429	9.7
Midwest	43	2,471	197	8.0
South	31	2,393	215	9.0
West	1	287	40	13.9

Table 17
TRENDS IN ADMISSIONS OF MEN
IN ALL BASIC RN PROGRAMS: 1978-1989¹

YEAR	NUMBER OF PROGRAMS REPORTING	MEN	
		Number	Percent
ALL REPORTING RN PROGRAMS			
1978	1,202	6,359	6.3
1981	1,276	6,498	7.3
1984	1,348	7,971	7.0
1985	1,260	6,344	6.3
1986	1,228	5,715	6.6
1987	1,192	5,302	7.2
1988	1,257	5,958	7.3
1989	1,272	7,558	8.2
BACCALAUREATE PROGRAMS			
1978	320	2,199	6.2
1981	333	1,959	7.3
1984	404	2,384	6.4
1985	374	1,972	5.9
1986	382	1,783	6.0
1987	370	1,560	7.1
1988	412	1,675	6.7
1989	429	1,820	7.0
ASSOCIATE DEGREE PROGRAMS			
1978	571	3,133	6.8
1981	654	3,677	7.9
1984	695	4,712	8.0
1985	643	3,540	6.5
1986	643	3,432	7.1
1987	630	3,290	7.6
1988	682	3,726	7.6
1989	695	4,857	8.6
DIPLOMA PROGRAMS			
1978	311	1,027	5.3
1981	289	862	5.6
1984	249	875	5.1
1985	243	832	5.9
1986	203	498	5.3
1987	192	452	5.9
1988	163	557	6.8
1989	148	881	9.2

¹Excludes American Samoa, Guam, Puerto Rico, and the Virgin Islands.

Table 18
ENROLLMENTS OF MEN IN ALL BASIC RN PROGRAMS,
BY NLN REGION: 1989

NLN REGION	NUMBER OF PROGRAMS REPORTING	TOTAL ENROLLMENTS	MEN	
			Number	Percent
ALL REPORTING RN PROGRAMS				
All regions	1,272	178,825	12,404	6.9
North Atlantic	307	49,093	3,585	7.3
Midwest	361	46,461	2,657	5.7
South	433	61,855	4,332	7.0
West	171	21,416	1,830	8.5
BACCALAUREATE PROGRAMS				
All regions	429	66,057	3,867	5.9
North Atlantic	96	15,096	650	4.3
Midwest	132	19,255	1,026	5.3
South	151	23,442	1,549	6.6
West	50	8,264	642	7.8
ASSOCIATE DEGREE PROGRAMS				
All regions	695	93,517	7,033	7.5
North Atlantic	138	24,782	2,136	8.6
Midwest	186	22,282	1,308	5.9
South	251	33,658	2,451	7.3
West	120	12,795	1,138	8.9
DIPLOMA PROGRAMS				
All regions	148	19,251	1,504	7.8
North Atlantic	73	9,215	799	8.7
Midwest	43	4,924	323	6.6
South	31	4,755	332	7.0
West	1	357	50	14.0

Table 19
TRENDS IN ENROLLMENTS OF MEN
IN ALL BASIC RN PROGRAMS: 1978-1989¹

YEAR	NUMBER OF PROGRAMS REPORTING	MEN	
		Number	Percent
ALL REPORTING RN PROGRAMS			
1978	1,202	10,327	4.8
1981	1,276	11,183	5.7
1984	1,348	13,652	6.2
1985	1,260	9,623	5.2
1986	1,228	8,259	4.4
1988	1,257	10,100	6.2
1989	1,272	12,404	6.9
BACCALAUREATE PROGRAMS			
1978	320	4,249	4.5
1981	333	4,265	5.5
1984	404	5,747	6.2
1985	374	3,787	4.9
1986	382	2,219	2.4
1988	412	3,363	5.4
1989	429	3,867	5.9
ASSOCIATE DEGREE PROGRAMS			
1978	571	4,216	5.3
1981	654	5,252	6.3
1984	695	6,052	6.5
1985	643	4,254	5.5
1986	643	4,992	6.7
1988	682	5,539	6.8
1989	695	7,033	7.5
DIPLOMA PROGRAMS			
1978	311	1,862	4.2
1981	289	1,666	4.5
1984	249	1,853	5.2
1985	243	1,582	5.5
1986	203	1,048	4.9
1988	163	1,198	6.5
1989	148	1,504	7.8

¹Excludes American Samoa, Guam, Puerto Rico, and the Virgin Islands.

Table 20
GRADUATIONS OF MEN FROM ALL BASIC RN PROGRAMS,
BY NLN REGION: 1988-1989

NLN REGION	NUMBER OF PROGRAMS REPORTING	TOTAL GRADUATIONS	MEN	
			Number	Percent
ALL REPORTING RN PROGRAMS				
All regions	1,272	54,483	3,080	5.7
North Atlantic	307	13,911	710	5.1
Midwest	361	14,939	694	4.6
South	433	17,738	1,087	6.1
West	171	7,895	589	7.5
BACCALAUREATE PROGRAMS				
All regions	429	16,912	851	5.0
North Atlantic	96	4,116	152	3.7
Midwest	132	4,950	238	4.8
South	151	5,440	336	6.2
West	50	2,406	125	5.2
ASSOCIATE DEGREE PROGRAMS				
All regions	695	32,974	1,889	6.0
North Atlantic	138	7,709	438	5.7
Midwest	186	8,695	394	4.5
South	251	11,218	705	6.3
West	120	5,352	452	8.4
DIPLOMA PROGRAMS				
All regions	148	4,597	240	5.2
North Atlantic	73	2,086	120	5.8
Midwest	43	1,294	62	4.8
South	31	1,080	46	4.3
West	1	137	12	8.8

Table 21
TRENDS IN GRADUATIONS OF MEN
FROM ALL BASIC RN PROGRAMS: 1978-1989¹

YEAR	NUMBER OF PROGRAMS REPORTING	MEN	
		Number	Percent
ALL REPORTING RN PROGRAMS			
1978	1,202	3,862	5.5
1981	1,276	3,492	5.8
1984	1,348	4,286	5.8
1985	1,260	3,908	5.7
1986	1,228	3,916	5.5
1988	1,237	3,264	5.7
1989	1,272	3,080	5.7
BACCALAUREATE PROGRAMS			
1978	320	1,159	5.0
1981	333	1,117	5.5
1984	404	1,423	6.2
1985	374	1,198	5.6
1986	382	1,146	4.3
1988	393	983	5.2
1989	429	851	5.0
ASSOCIATE DEGREE PROGRAMS			
1978	571	2,048	6.4
1981	654	1,884	6.4
1984	695	2,325	5.7
1985	643	2,201	6.1
1986	643	2,326	6.8
1988	681	1,896	5.9
1989	695	1,989	6.0
DIPLOMA PROGRAMS			
1978	311	655	4.4
1981	289	491	4.4
1984	249	538	4.8
1985	243	509	4.5
1986	203	444	4.4
1988	163	385	6.7
1989	148	240	5.2

¹Excludes American Samoa, Guam, Puerto Rico, and the Virgin Islands

Table 22
ADMISSIONS OF MEN TO LPN/LVN PROGRAMS,
BY NLN REGION: 1988-1989

NLN REGION	NUMBER OF PROGRAMS REPORTING	TOTAL ADMISSIONS	MEN	
			Number	Percent
All regions	1,026	47,602	2,860	6.0
North Atlantic	179	8,972	489	5.4
Midwest	222	11,332	599	5.3
South	464	21,087	1,383	6.6
West	161	6,211	389	6.3

Table 23
TRENDS IN ADMISSIONS OF MEN
IN LPN/LVN PROGRAMS: 1978-1989¹

YEAR	NUMBER OF PROGRAMS REPORTING	MEN	
		Number	Percent
ALL REGIONS			
1978	1,084	2,322	4.4
1981	1,081	2,749	6.1
1984	912	3,170	6.5
1985	851	2,167	6.1
1987	738	1,862	6.1
1988	780	2,602	7.8
1989	1,026	2,860	6.0
NORTH ATLANTIC			
1978	195	403	3.7
1981	187	408	4.6
1984	166	518	4.8
1985	158	513	6.1
1987	135	266	4.5
1988	146	363	5.5
1989	179	489	5.4
MIDWEST			
1978	230	374	2.7
1981	252	695	5.2
1984	205	790	6.5
1985	199	517	6.0
1987	181	505	6.2
1988	181	443	5.4
1989	222	599	5.3
SOUTH			
1978	483	971	4.7
1981	468	995	5.9
1984	408	1,139	5.7
1985	368	757	5.3
1987	314	726	6.0
1988	348	1,365	9.5
1989	464	1,383	6.6
WEST			
1978	176	574	7.8
1981	174	651	11.5
1984	133	723	11.5
1985	126	380	9.2
1987	108	365	8.9
1988	105	431	10.5
1989	161	389	6.3

¹Excludes American Samoa, Guam, Puerto Rico, and the Virgin Islands.

Table 24
ENROLLMENTS OF MEN IN LPN/LVN PROGRAMS,
BY NLN REGION: 1989

NLN REGION	NUMBER OF PROGRAMS REPORTING	TOTAL ENROLLMENTS	MEN	
			Number	Percent
All regions	1,026	46,720	2,654	5.7
North Atlantic	179	9,595	428	4.5
Midwest	222	11,370	568	5.0
South	464	19,242	1,312	6.8
West	161	6,513	346	5.3

Table 25
TRENDS IN ENROLLMENTS OF MEN
IN LPN/LVN PROGRAMS: 1978-1989¹

YEAR	NUMBER OF PROGRAMS REPORTING	MEN	
		Number	Percent
ALL REGIONS			
1978	1,084	1,864	3.9
1981	903	2,385	5.8
1984	912	2,618	6.6
1985	851	1,664	5.6
1988	779	2,568	7.8
1989	1,026	2,654	5.7
NORTH ATLANTIC			
1978	195	350	3.1
1981	159	433	4.9
1984	166	631	6.6
1985	158	423	5.7
1988	146	403	5.9
1989	179	428	4.5
MIDWEST			
1978	230	277	2.3
1981	218	598	5.0
1984	205	569	6.1
1985	199	375	5.3
1988	180	410	4.9
1989	222	568	5.0
SOUTH			
1978	483	792	4.4
1981	382	730	4.7
1984	408	846	5.5
1985	368	583	4.9
1988	348	1,389	10.1
1989	464	1,312	6.8
WEST			
1978	176	445	6.5
1981	150	624	11.4
1984	133	572	10.5
1985	126	283	8.2
1988	105	366	9.4
1989	161	346	5.3

¹Excludes American Samoa, Guam, Puerto Rico, and the Virgin Islands.

Table 26
GRADUATIONS OF MEN FROM LPN/LVN PROGRAMS,
BY NLN REGION: 1988-1989

NLN REGION	NUMBER OF PROGRAMS REPORTING	TOTAL GRADUATIONS	MEN	
			Number	Percent
All regions	1,041	30,368	1,608	5.3
North Atlantic	179	5,595	219	3.9
Midwest	234	7,536	349	4.6
South	466	12,236	781	6.4
West	162	5,001	259	5.2

Table 27
TRENDS IN GRADUATIONS OF MEN
FROM LPN/LVN PROGRAMS: 1978-1989¹

YEAR	NUMBER OF PROGRAMS REPORTING	MEN	
		Number	Percent
ALL REGIONS			
1978	1,084	1,389	3.5
1981	887	1,386	4.6
1984	912	1,894	5.2
1985	851	1,372	4.9
1988	782	1,184	5.8
1989	1,041	1,608	5.3
NORTH ATLANTIC			
1978	195	247	2.9
1981	154	222	3.7
1984	166	331	4.4
1985	158	250	4.0
1988	147	208	5.3
1989	179	219	3.9
MIDWEST			
1978	230	183	1.7
1981	211	327	3.5
1984	217	474	5.0
1985	211	312	4.1
1988	211	212	4.0
1989	234	349	4.6
SOUTH			
1978	483	632	4.5
1981	373	380	4.7
1984	408	627	4.4
1985	368	503	4.7
1988	349	516	6.3
1989	466	781	6.4
WEST			
1978	176	327	6.0
1981	155	357	7.7
1984	133	462	9.2
1985	126	307	7.6
1988	105	248	8.6
1989	162	259	5.2

¹Excludes American Samoa, Guam, Puerto Rico, and the Virgin Islands.

Section 3-4
Appendix



APPENDIX: Methodology Used to Estimate the Racial/Ethnic Composition of the Nursing Student Body

Statement of the Problem

The National League for Nursing (NLN) has been collecting data on the racial/ethnic backgrounds of nursing students since 1979: first on a triennial basis and since 1984, annually. The response rate to this component of the annual survey has varied from year to year and usually hovers in the mid-80 percentile. In recent years, there has been some concern expressed over the quality and the appropriate interpretation of these data. The Division of Nursing, Bureau of Health Professions, Health Resources and Services Administration, Department of Health and Human Services, contracted with the NLN to evaluate the quality, coverage, and consistency of nursing educational statistics, particularly in the area of racial/ethnic data, to quiet concerns about these data.

Traditionally, the racial/ethnic data have been reported in their actual form, and no attempts have been made to assess the impact of nonresponse on the entire data set. This approach assumes that nonrespondents have the same characteristics, and hence are identical to respondents, *vis a vis* the distribution of minority students. In short, the question arises: does the current treatment of the data accurately estimate the numbers of minorities in nursing education programs, or does this approach inflate or deflate the numbers of minority students?

Furthermore, there has been no way to determine the reasons associated with nonresponse: does nonresponse reflect inability to answer the questions regarding racial/ethnic backgrounds of students or the absence of minority students in the nursing program?

There are two components to this methodological concern. First, can we determine why schools fail to supply data on racial/ethnic backgrounds of students, e.g., data are not collected, it is difficult to compile the data, privacy policy prohibits the release of such data, and so forth. As part of this contract with the Division of Nursing, the NLN has put in place several research protocols, including extensive telephone and mail follow-up, to determine the reasons for nonresponse. Moreover, the overall quality of the racial/ethnic data has been reviewed and additional "editing" and "cleaning" specifications have been introduced to improve the caliber of the data collected on the annual survey.

Second, in the final analysis, even with the most rigorous follow-up, the issue of nonresponse or "missing data" remains. It becomes imperative, therefore, to develop a systematic approach which can be used in the preparation of reliable estimates of the racial/ethnic composition of the student body and graduates in relation to the total student body.

Estimating the Racial/Ethnic Composition of the Nursing Student Body: An Overview

The distribution of minority students is not random; variables such as program type, geographic location, and financial support strongly influence the distribution of minority students. These factors must be brought into play when approximating the total number of minority students from incomplete data. Other institutional characteristics, such as NLN accreditation status and administrative control, were considered poorer correlates to the distribution of students with different racial/ethnic backgrounds.

The primary objective of the new approach to estimating the number of minority students was to somehow determine the average proportion of minority students per responding program while taking into account several significant institutional characteristics and implant those proportions to the nonresponding programs. In an ideal case, a nonrespondent program can be matched to other programs of the same program type, in the same state, and with the same financial support. Therefore, for example, a public associate degree program in Nebraska that did not respond would be proportioned to reflect the data of other public associate degree programs in Nebraska that did answer the question on racial/ethnic backgrounds of students.

At the very least, those programs that fail to provide data on the racial/ethnic backgrounds of students would be assigned data that reflect the national average as determined by those programs that have provided complete data on racial/ethnic backgrounds of students. As a practical matter, since the number of nursing pro-

grams is quite large (over 1,450) and the response rate to the section on racial/ethnic backgrounds is respectable (80 to 85 percent), few programs are so unique in terms of geography, program type, and financial support as to require the assignment of the national average. However, those programs that are indeed unique, such as the single private diploma program or the lone public baccalaureate program in a particular state, will be assigned data that reflect the national average for their respective program types.

This approach of projecting the total number of minority nursing students using incomplete data is greatly facilitated by the comprehensiveness of the entire annual survey database. The NLN has a commitment to obtain 100 percent response rates on key data such as annual admissions, enrollments, and graduations; therefore, there are no programs for which we have a complete absence of data. At minimum, we know the actual size of the student population, even if the data on racial/ethnic distribution is lacking.

Estimating the Racial/Ethnic Composition of the Nursing Student Body: A Step-by-Step Description

For illustration purposes, we have conjured up a sample data set that includes examples of 22 possible configurations of missing and valid data. Fictitious data have been drawn to represent the most complete case, where all necessary data on racial/ethnic distribution and total admissions were present, to the least complete case, where all data were missing, plus all possible variations within these extremes (Attachment).

To properly explain the steps of the program/system, let's follow case #5 which contains the following racial/ethnic data:

Indian	= 5
Asian	= missing
Black	= 25
Hispanic	= missing
White	= missing
# Admitted	= 100

Once the illustrative data set was determined, the first step was the calculation of a total sample average which gave us ethnicity distributions for Indians, Asians, blacks, Hispanics, and whites for all admission, enrollment, and graduation values. A total sample average was also calculated for total admission, enrollment, and graduations.

The national sample for admission data looked something like this: (Note that at this early stage, program type, geographic location, and financial support are not taken into account).

Indian	.08
Asian	.09
Black	.16
Hispanic	.19
White	.48
Avg. # Admitted	125

Using the percentages generated from the national figures, all data values for all cases were then replaced temporarily with percentages based on these national averages. For example for case #5, the racial/ethnic distribution was percentaged to:

Indian	.08 x 125 = 10
Asian	.09 x 125 = 11
Black	.16 x 125 = 20
Hispanic	.19 x 125 = 24
White	.48 x 125 = 60
	125

After all cases had been temporarily percentaged with the total sample average, those that had actually reported a total admission number were then assigned their real admission figure and racial/ethnic distributions were re-percentaged using the total admissions reported. For example in case #5, the total admissions were reported as 100 so the racial/ethnic distribution was re-percentaged as follows:

Indian	.08 x 100 =	8
Asian	.09 x 100 =	9
Black	.16 x 100 =	16
Hispanic	.19 x 100 =	19
White	.48 x 100 =	48
		100

In short, when the total number of admissions is available, as is usually the case in the NLN database, then the average number of admissions previously inserted will be replaced with the actual number and a re-estimation of the racial/ethnic distribution is performed. In case #5, where admissions equal 100, the nationwide racial distribution is re-estimated to agree with the total admissions reported by that program.

Until now, the distribution of minority students has been estimated from a national perspective only. At the next stage three significant institutional characteristics are introduced. They are program type (diploma, associate degree, baccalaureate), state (Alaska to Wyoming), and financial support (public or private).

If ethnicity percentages are available for the state, type of program, and financial auspices that match the case with missing data, then those percentages are substituted to recompute the racial/ethnic distribution of the incomplete case. If these percentages are not available because there is no other complete case with respect to the five racial/ethnic values and the same state, type of program, and financial support, then the numbers based on the national averages are maintained as in the case for #5.

At this point, the temporarily inserted estimated numbers for each racial/ethnic group are now replaced with any that are available. So for case #5, (* = actual data):

Indian	5*
Asian	9
Black	25*
Hispanic	19
White	48
	106 ≠ 100*

For the ethnic values for which data are not available in the case record, these values are adjusted according to the following formula:

$$\text{Adjusted} = \left(\frac{\text{Total Admitted} - \text{sum of available ethnicity values}}{\text{Total Admitted} - \text{sum of available ethnicity values}} \right) \times \left(\frac{\text{Ethnic value in previous step}}{\text{sum of ethnicity values in previous step} - \text{sum of available values in case record}} \right)$$

Using the formula, the computations for case #5 are as follows:

Indian Data value, 5, is available in case record so no adjusted value is computed.

$$\text{Asian} \quad (100 - [5 + 25]) \times \frac{9}{106 - [5 + 25]} = (70) (.11842) = 8.29 = 8$$

Black Data value, 25, is available in case record so no adjusted value is computed.

$$\text{Hispanic} \quad (100 - [5 + 25]) \times \frac{19}{106 - [5 + 25]} = (70) (.25) = 17.50 = 18$$

$$\text{White} \quad (100 - [5 + 25]) \times \frac{48}{106 - [5 + 25]} = (70) (.63158) = 44.21 = 44$$

At this point, the distribution of the cases in this last step is our "best guess" as to the racial/ethnic distribution of the admitted students in Program #5.

After all cases are properly recomputed based on existing data and imputed numbers, analyses were undertaken to aggregate the newly established data. The estimates program was run four times: first with all RN programs (baccalaureate, associate degree, diploma) combined, then with baccalaureate, associate degree, and diploma programs alone.

Recap

The approach described above was developed to handle a range of possibilities related to missing racial/ethnic data. In the absence of any real data, national averages were inserted. However, more typically, programs with missing data were matched to similar programs in terms of type of nursing education program, state, and financial support to further fine-tune the imputed values.

It is important to note that the NLN data set is comprehensive on the three independent variables (state, program type, and financial support) and obtains a 100 percent response rate on admissions, graduations, and enrollments. Therefore, the estimates for missing racial/ethnic data are premised on very sound ground. The new approach described above can accommodate a wider range of possibilities than actually occur in the real world. Moreover, this approach can serve as a model adaptable for use with other data areas such as applications data or class-by-class breakdowns.

Attachment SAMPLE DATA SET

ID	STATE	PROGTYPE	PUBPRIV	INDIAN	ASIAN	BLACK	HISP	WHITE	ADMTOT
1	1	1		5	5	10	5	25	50
2	1	1		1	10	50	40	90	200
3	1	1		1	-9	-9	-9	-9	100
4	1	1		-9	-9	-9	-9	-9	100
5	1	1	2	5	-9	25	-9	-9	100
6	1	1	-9	5	-9	-9	-9	-9	100
7	1	2	1	20	10	-9	-9	-9	30
8	1	2	2	30	-9	50	-9	-9	100
9	1	2	1	-9	-9	-9	-9	-9	200
10	1	2	2	10	-9	-9	50	-9	100
11	2	1	1	15	20	50	-9	-9	300
12	2	1	2	10	-9	-9	-9	90	100
13	2	1	1	-9	5	-9	-9	-9	30
14	2	1	-9	-9	-9	40	-9	60	100
15	2	4	-9	10	15	-9	-9	-9	25
16	2	-9	1	10	-9	-9	-9	-9	-9
17	2	-9	1	-9	-9	30	-9	-9	110
18	3	-9	1	20	20	10	40	60	150
19	4	2	2	5	10	10	10	65	100
20	4	2	2	-9	-9	-9	-9	-9	100
21	4	2	2	20	-9	-9	-9	-9	100
22	-9	-9	-9	-9	-9	-9	-9	-9	-9

Number of cases read = 22

Number of cases listed = 22

PART FOUR
FOCUS ON PRACTICAL/VOCATIONAL NURSING



Section 4-1
Executive Summary



EXECUTIVE SUMMARY

SURGE IN PRACTICAL NURSING PROGRAMS HOLDS PROMISE FOR THE NURSING SHORTAGE AND QUALITY CARE

For the third year in a row, findings from the NLN's annual survey reveal continued improvement in enrollments in and graduations from licensed practical/vocational (LPN/LVN) nursing programs. The nation's 1,048 LPN/LVN programs are currently preparing 46,720 students for licensure (Figures 1 & 2). This enrollment figure marks a dramatic improvement over last year's figure. Indeed, it appears that the crisis of extraordinarily low interest expressed in LPN/LVN education in the mid-1980s is emphatically over. Note, however, that the present enrollments are still far below those of the 1971-1983 period when the student population fluctuated in the mid to upper 50,000 range (Figures 3 & 4).

Recent improvements in enrollments in and graduations from the nation's practical and vocational nursing programs have, in the wake of the registered nurse shortage, significant implications for the quality of health care. The presence of increasing numbers of LPN/LVNs in the labor force will permit the comprehensive restructuring of professional nursing resources suggested by the Secretary of Health and Human Services Commission on Nursing. Additional nursing personnel at the technical level will free the registered nurses to accomplish those vital activities that only a professional nurse can perform.

Equally important, the increased number of LPN/LVNs will have a positive impact on the access to and quality of care in the long-term care arena where their services are most needed. Indeed, in comparison to RNs, practical and vocational nurses predominate in the nursing home industry (Figure 5).

LPN/LVNs PREVAIL OVER RCTs

On the heels of the RCT fiasco, the increased interest in practical and vocational nursing indicates that the nursing profession remains the proper overseer and supervisor of ancillary health care workers. The American Medical Association (AMA) recently rescinded their proposal to create a new health care worker, the registered care technician (RCT), after a two-year struggle to rally support from other health care providers, educators, and consumers. The nursing leadership quickly criticized the AMA proposal indicating that the RCT was simply a medical version of the practical/vocational nurse and launched a campaign to devastate the AMA's attempt to control an area so clearly in nursing's realm. The recent revival in practical/vocational nursing education demonstrates that individuals interested in providing technical health care services recognize their place within nursing, not medicine.

The supply of LPN/LVNs is projected to climb steadily into the next century (Figure 6). In 1983, when the Federal Government last surveyed this population, 539,463 practical/vocational nurses were employed in the health care delivery system. Government estimates indicate that approximately 608,000 LPN/LVNs are currently in the supply, and by the turn of the century the figure will grow to 756,000. Two recent trends will determine whether the future supply of LPN/LVNs will meet the demand. First, the spiralling growth in long-term care and home health care will mean that greater numbers of practical/vocational nurses will be required. Moreover, as acute care settings pay increasingly competitive salaries of registered nurses, the cost-effectiveness of LPN/LVNs will increase their desirability.

NOTE: All the data presented in Figures 1 to 10 originate from NLN's Annual Survey of Nursing Educational Programs unless otherwise indicated.

DIVERSITY—THE NORM IN PRACTICAL NURSING EDUCATION

Practical/vocational nursing education is not uniform. It can take place in a variety of settings—vocational/technical schools, community colleges, secondary schools, and hospitals. In fact, an LPN/LVN program's administrative control is strongly related to the region in which it is located. Programs in the North Atlantic states and the South are overwhelmingly in vocational/technical institutions; programs in the West are typically in community and junior colleges (Figure 7).

The practical/vocational nursing student population is diverse in both age and racial background. Similarly, greater numbers of men prepare for practical/vocational nursing than for registered nursing. However, the fact remains that for many students, practical/vocational nursing is simply a stepping stone toward registered professional nursing, and therefore the diversity may impact on the RN supply some time in the future.

Career mobility has long been a trademark within the nursing profession. Education and career ladders are available for nurse aides to progress to practical/vocational nursing, then to registered nursing, and on to advanced nursing practice. Indeed, a significant number of new registered nurses were licensed as practical/vocational nurses prior to advancing to the status of professional nurse (Figure 8). In fact, over 41 percent of recent associate degree (AD) graduates previously held practical/vocational nursing licenses. In one sense, therefore, any LPN/LVN may be seen as a potential RN. This has implications for employers as tuition reimbursement and career development become attractive staff benefits.

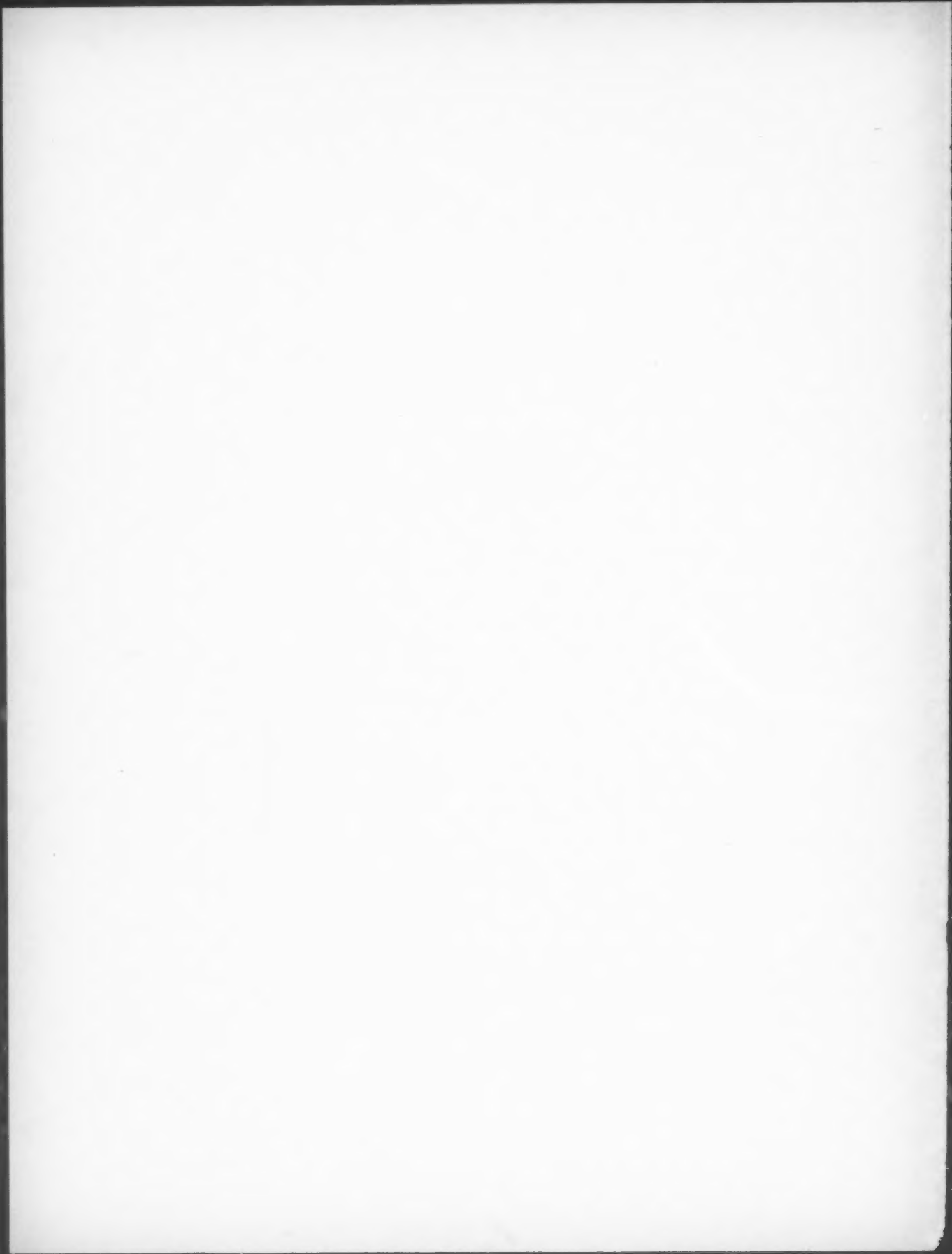
THE STATE OF LPN/LVN EDUCATION

The current 1,048 LPN/LVN programs are well distributed throughout the nation (Figure 9), and graduates are often the sole health care provider in some of the more rural areas. Typically 12 months in length, the majority of LPN/LVN programs are publicly funded. Tuitions at private institutions are significantly greater than publicly funded programs (Figure 10). It is interesting to note that annual tuition for LPN/LVN programs is quite similar to annual tuition at ADN programs.

In response to the increased demand for both practical and registered nurses, innovative approaches have been designed to accelerate the educational process. Many LPN/LVN programs will now offer credit to paraprofessional health care workers for their life experiences. Moreover, programs such as the Greater New York Hospital Association's renowned Project LINC (Ladders in Nursing Careers) have been specifically developed to attract hospital aides to practical or registered nursing. Cooperative Health Care Associates in the Bronx, New York, has recently introduced an upgrading program to prepare home health aides for practical/vocational licensure. This trend will, no doubt, continue, as the need for properly prepared technical nurses in home health and long-term care grows.

Peri Rosenfeld, PhD
Vice President
Division of Research

Section 4-2
Graphs



Number of LPN/LVN Programs: 10-Year Trend

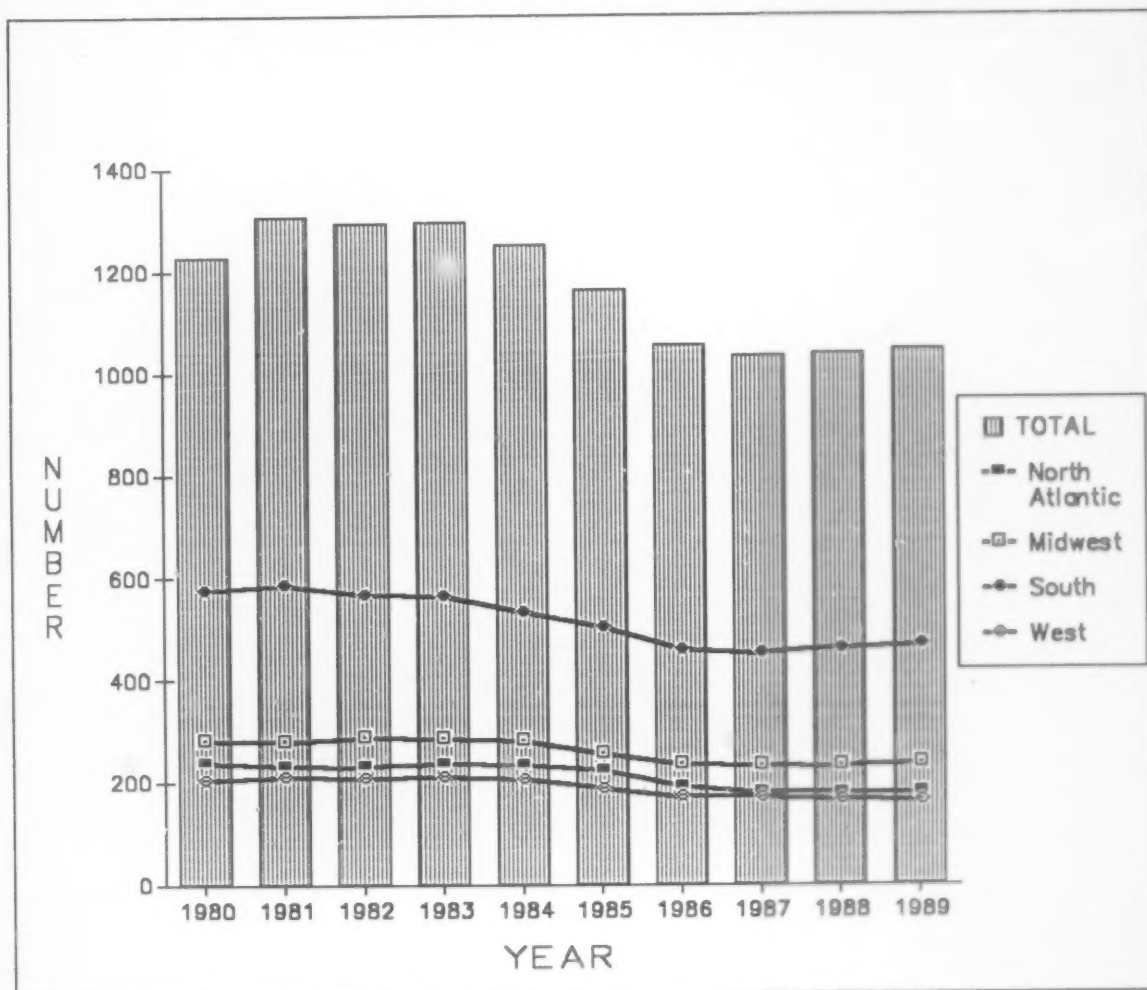


Figure 1. Number of LPN/LVN Programs: 10-Year Trend

The current number of 1,048 practical/vocational nursing programs represents a slight improvement over the previous year's figure of 1,039. The number of LPN/LVN programs peaked in 1981 when 1,231 were in operation.

Enrollments in LPN/LVN Programs: 10-Year Trend

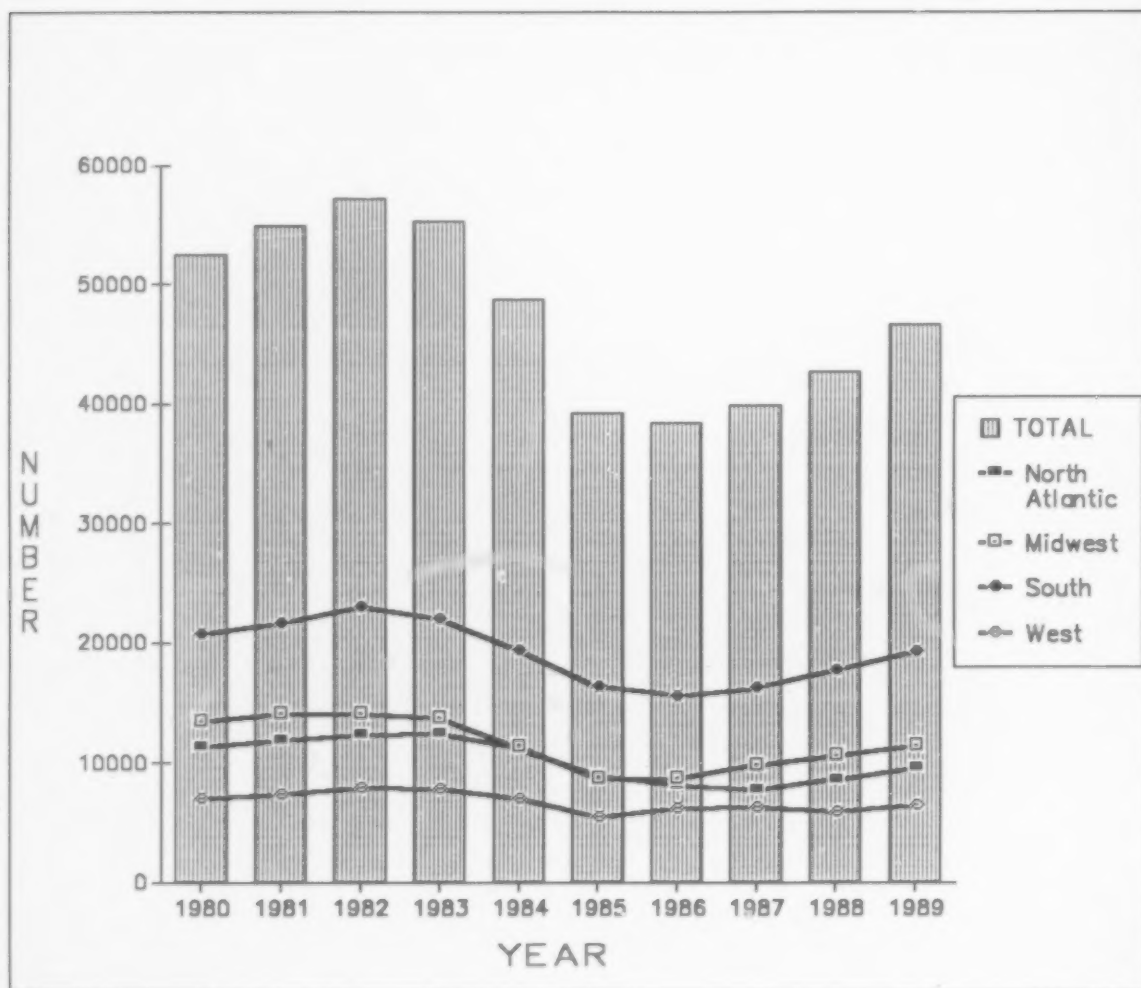


Figure 2. Enrollments in LPN/LVN Programs: 10-Year Trend

Almost 47,000 students are enrolled in LPN/LVN programs nationwide. This figure represents a 9.1 percent improvement over last year's figure. It should be noted, however, that enrollment peaked in 1982 when 57,367 students were in attendance in LPN/LVN programs.

Graduations from LPN/LVN Programs: 10-Year Trend

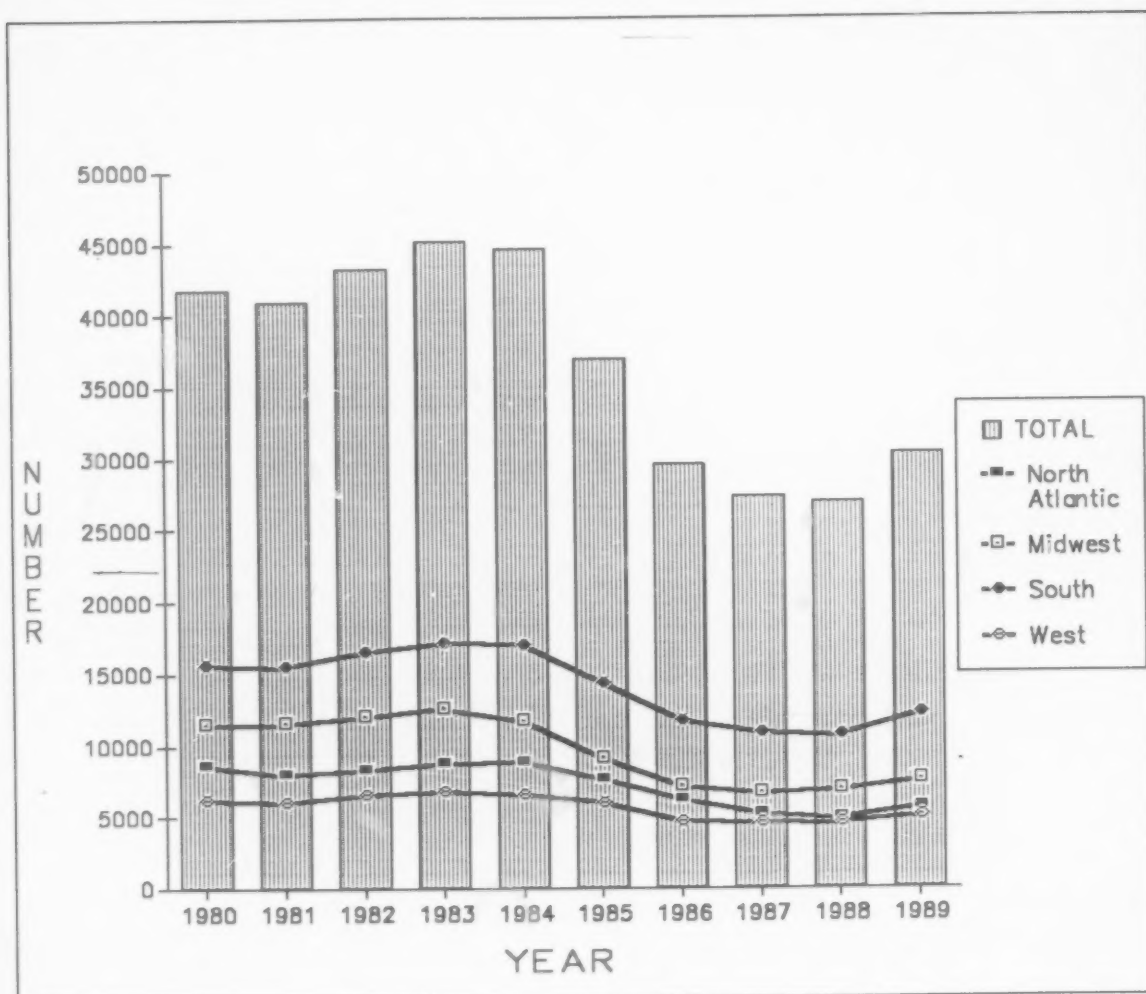


Figure 3. Graduations from LPN/LVN Programs: 10-Year Trend

Approximately 30,400 individuals graduated from LPN/LVN programs in the 1988–1989 academic year. This figure represents an almost 13 percent increase over the previous year. Growth is expected in future graduations as the current cohort makes its way through the educational pipeline. LPN/LVN graduations peaked in 1975–1976 when over 47,000 students graduated from the nation's LPN/LVN programs.

Annual Admissions to LPN/LVN Programs: 10-Year Trend

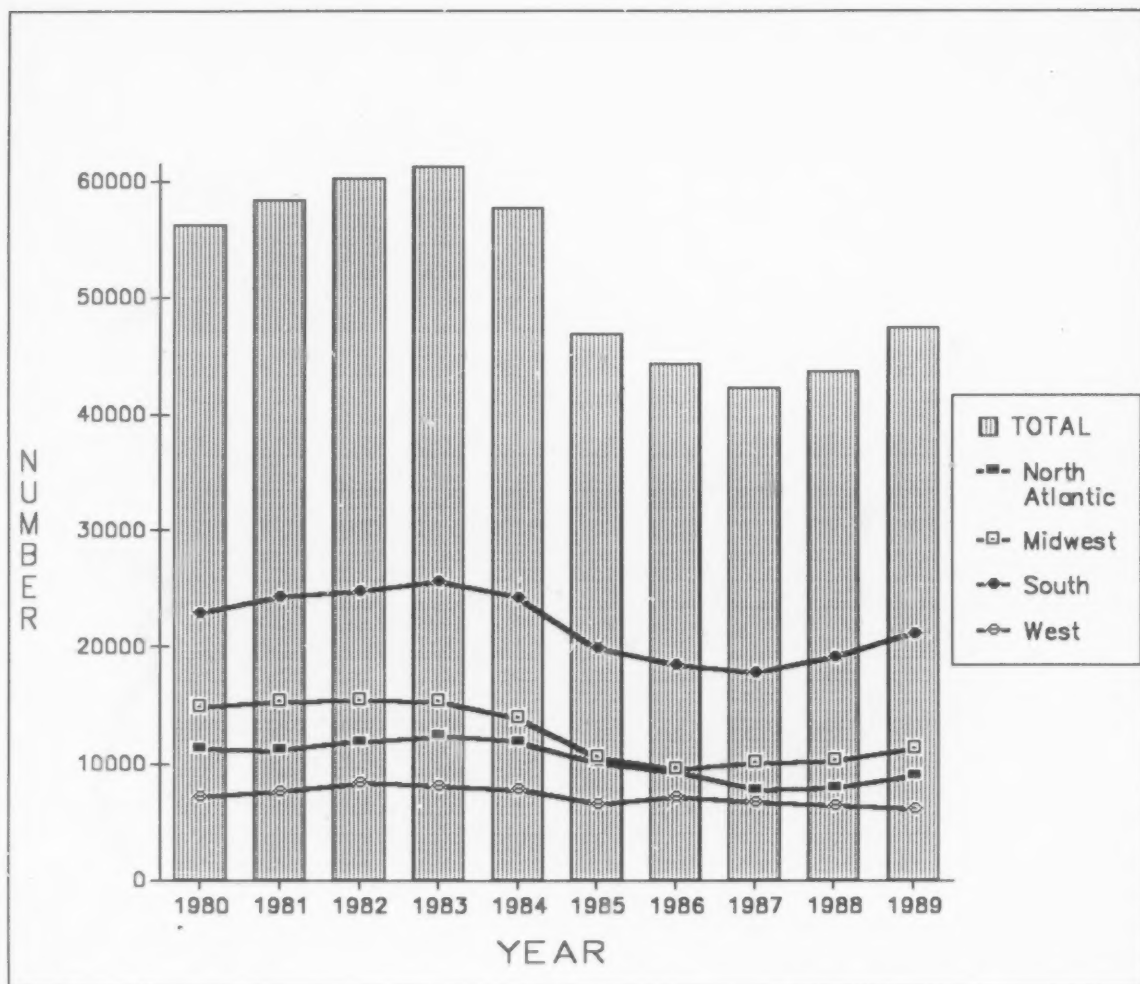


Figure 4. Annual Admissions to LPN/LVN Programs: 10-Year Trend

Admissions to LPN/LVN programs plummeted almost 30 percent between the 1982-1983 and 1987-1988 academic years. There have been modest increases over the past two years, bringing the current admissions figure to 47,600.

Employment Settings of LPN/LVNs

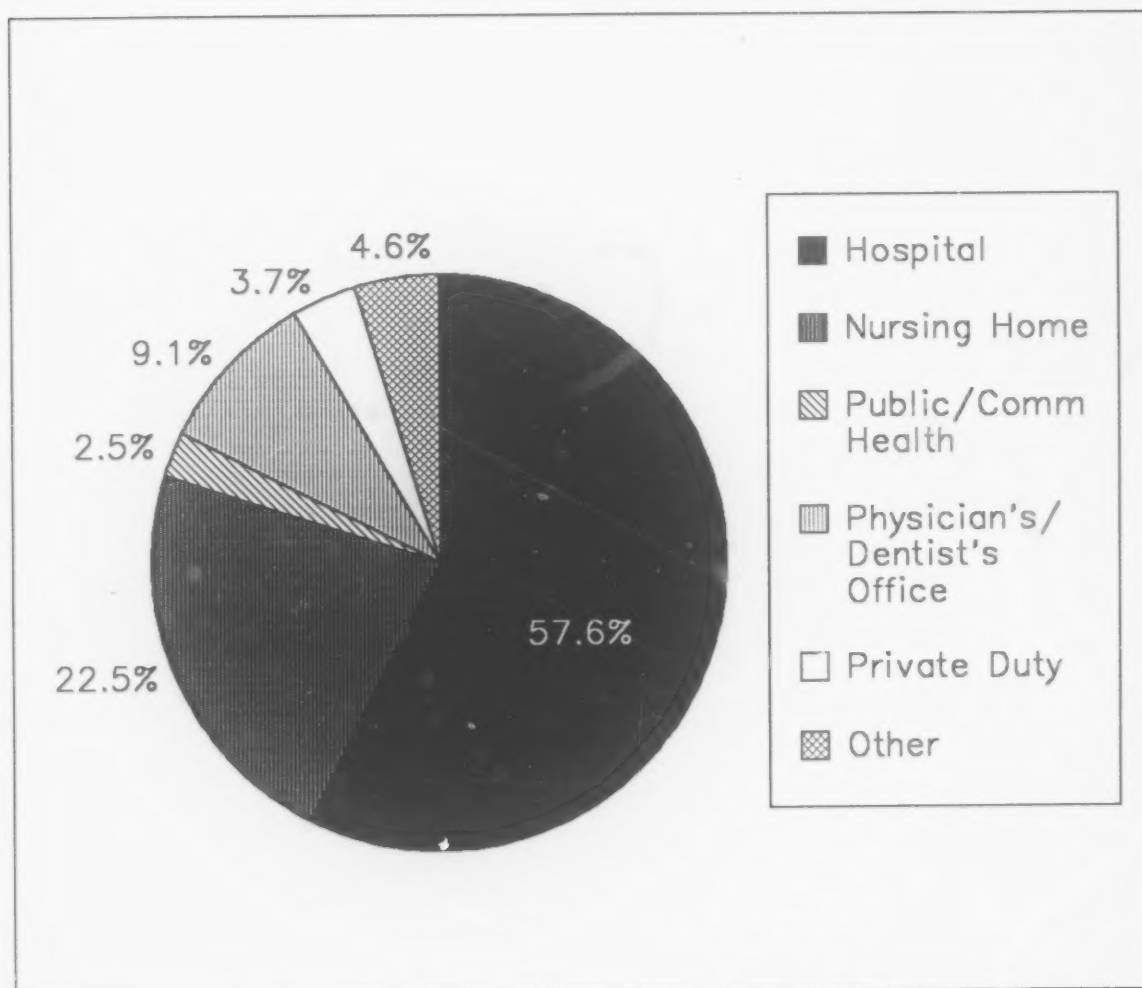


Figure 5. Employment Settings of LPN/LVNs

Findings from the 1983 Sample Survey of LPN/LVNs concluded that well over half the practicing LPN/LVNs are employed in hospitals. An additional 22.5 percent are practicing in nursing homes, and the remaining 20 percent are employed in physicians' offices, in public and community health, and in other settings.

Source: U.S. Department of Health and Human Services, Division of Nursing, *First National Sample Survey of Licensed Practical and Vocational Nurses, 1983*, Accession No. HRPO906278, National Technical Information Service, Springfield, VA, 1984.

Estimated Number of LPN/LVNs in the U.S.: 1983, 1990, 2000

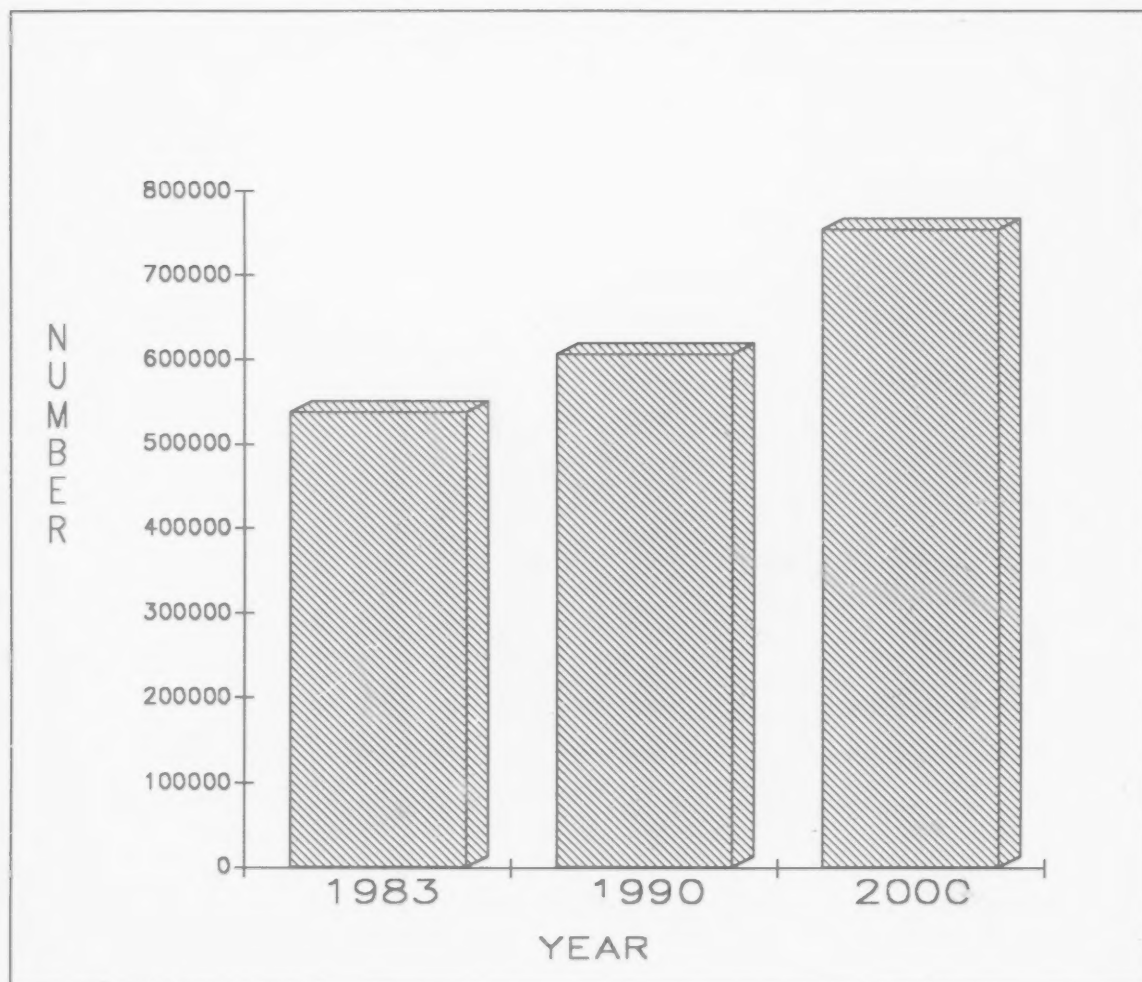


Figure 6. Estimated Number of LPN/LVNs in the U.S.: 1983, 1990, 2000

The supply of LPN/LVNs has grown continually since the last Sample Survey from 539,463 in 1983 to 608,000 in 1990. Additional growth is projected for the supply of LPN/LVNs throughout the next decade and into the next century. In fact, the Bureau of Labor Statistics forecasts that the demand for LPN/LVNs will expand astronomically in the next century as greater numbers are needed to care for the growing number of elderly people in the nation.

Source: U.S. Department of Health and Human Services, *Seventh Report to the President and Congress on the Status of Health Personnel in the U.S.*, Washington, DC, 1990

Administrative Control of LPN/LVN Programs by NLN Region

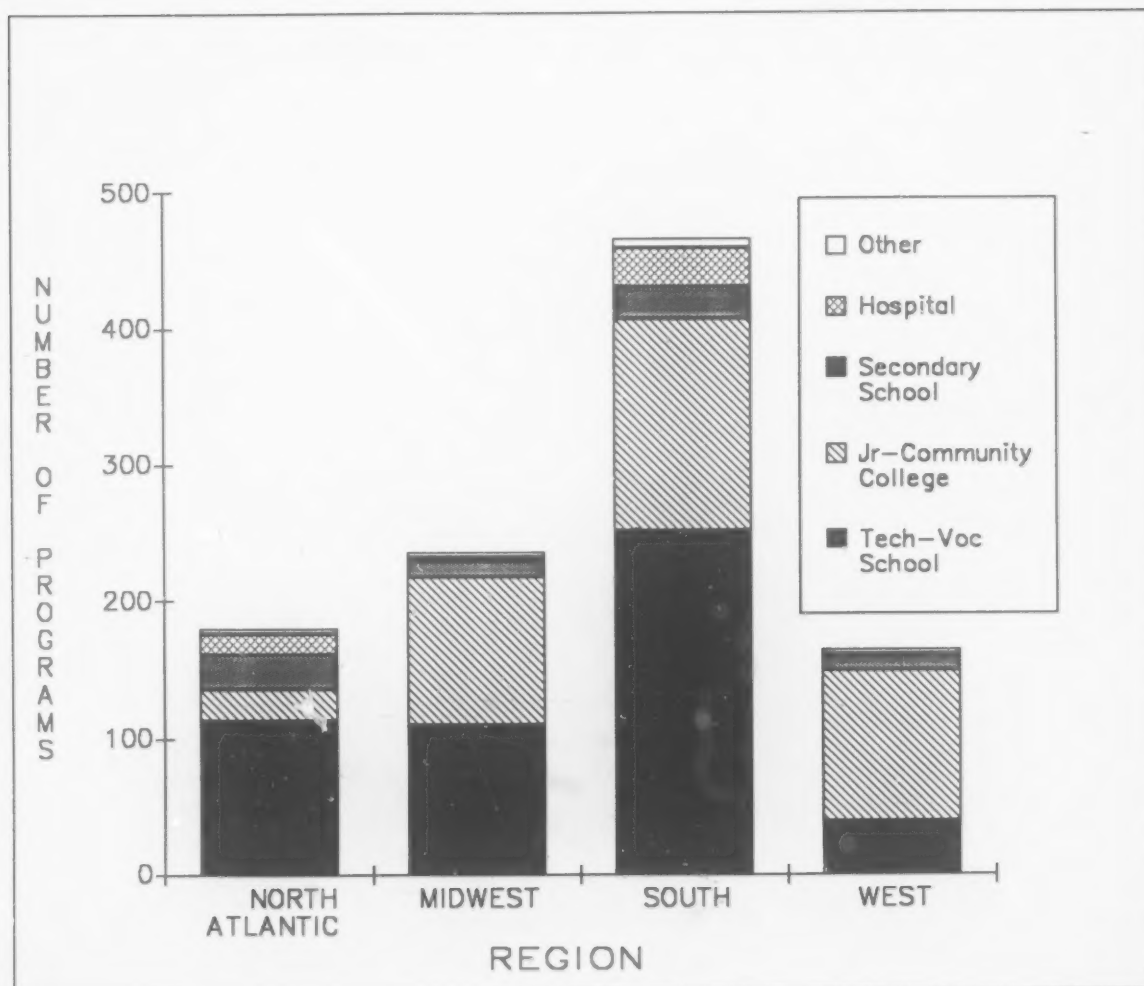


Figure 7. Administrative Control of LPN/LVN Programs by NLN Region

LPN/LVN programs are situated in a variety of different settings including vocational/technical institutes, junior and community colleges, government agencies, and hospitals. The majority of LPN/LVN programs in the North Atlantic region are in vocational/technical institutes, whereas the bulk of programs are in junior/community colleges in the West. In the Midwest and South, LPN/LVN programs are almost evenly split between vocational/technical schools and community colleges.

Prior LPN/LVN Licensure of Newly Licensed RNs by Program Type

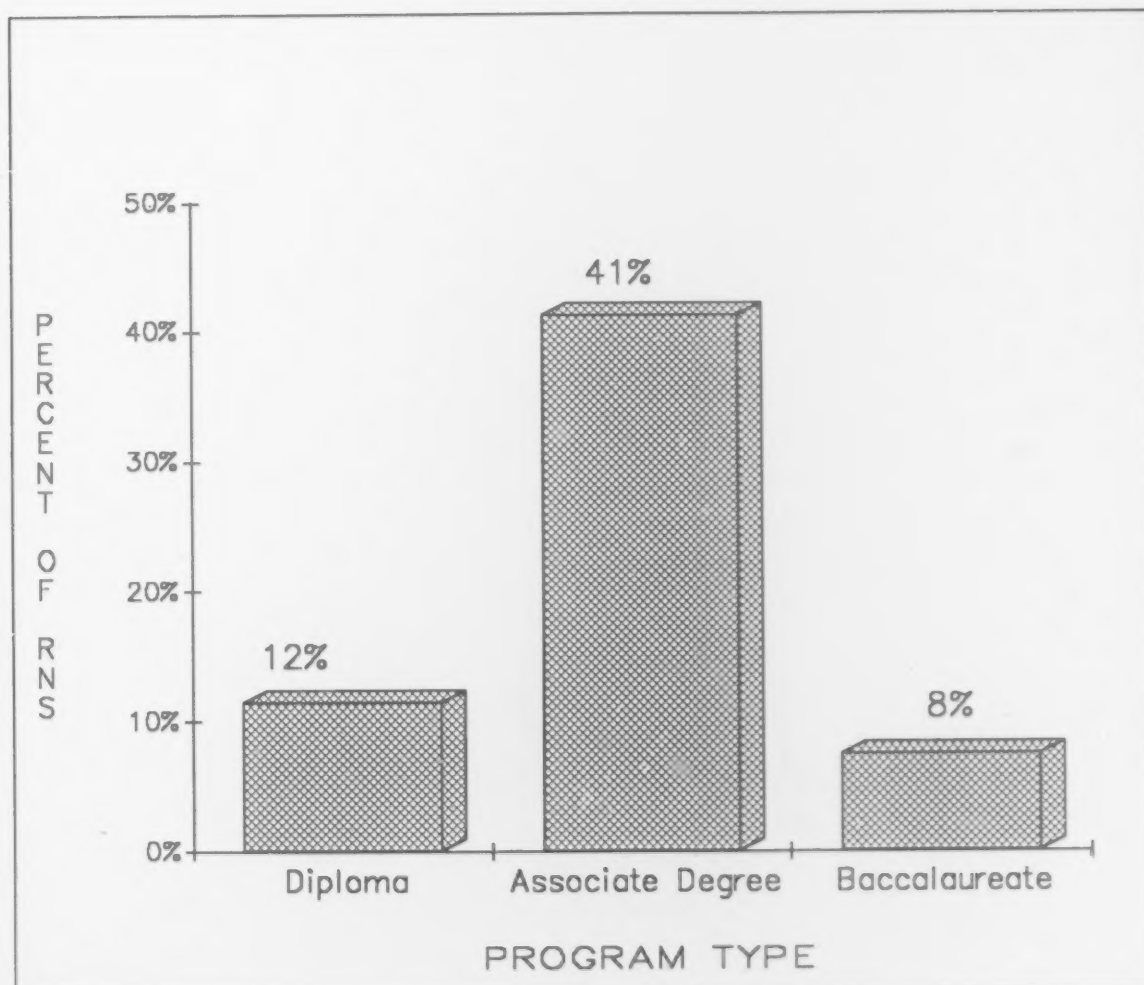


Figure 8. Prior LPN/LVN Licensure of Newly Licensed RNs by Program Type

A significant number of newly licensed RNs were previously licensed as practical/vocational nurses. Over 41 percent of new associate degree graduates held practical/vocational nursing licenses before becoming RNs. The percentage of diploma and baccalaureate graduates who were previously LPN/LVNs is 12 percent and 8 percent, respectively.

Source: Peri Rosenfeld, *Profiles of the Newly Licensed Nurse*, National League for Nursing, New York, NY, 1989.

Geographic Distribution of LPN/LVN Programs

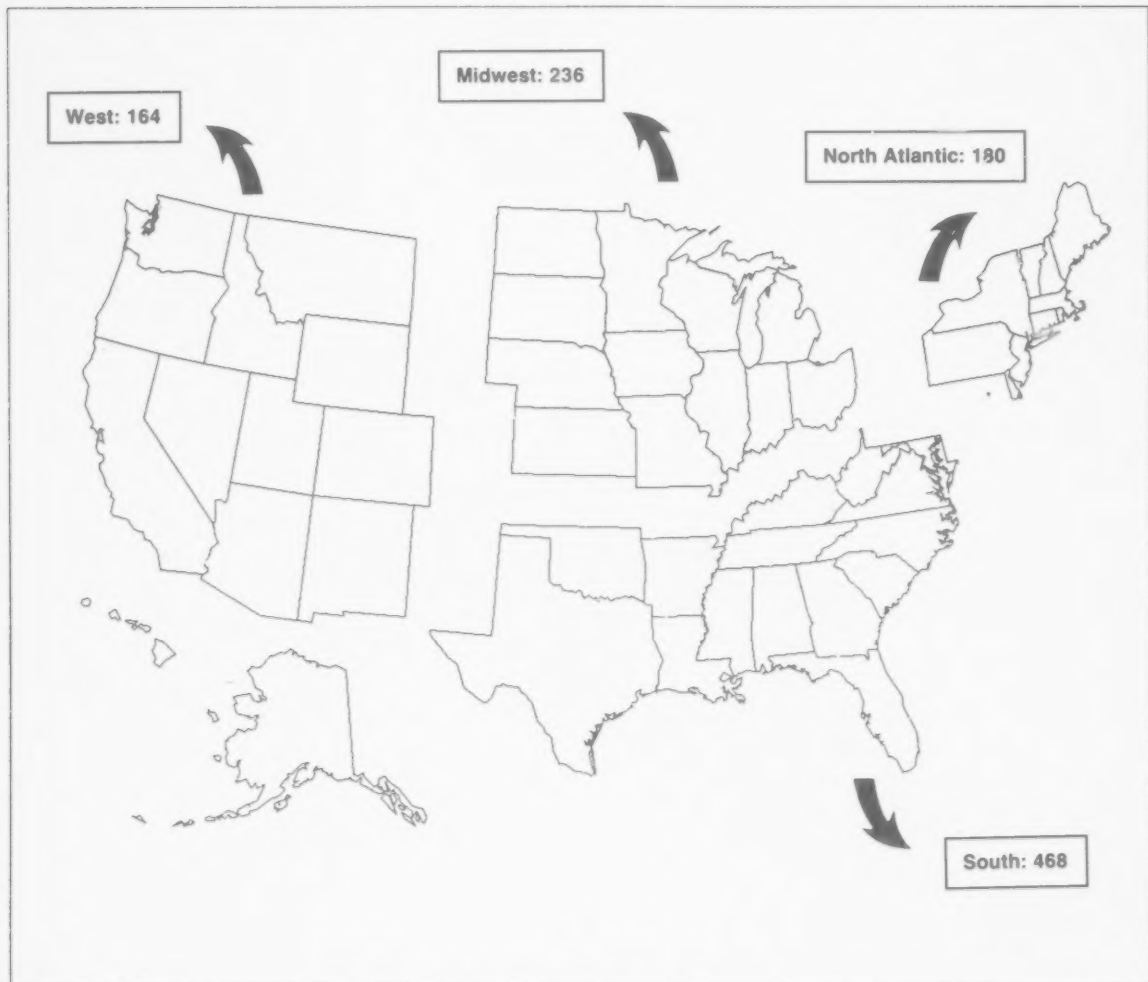


Figure 9. Geographic Distribution of LPN/LVN Programs

The 1,048 LPN/LVN programs are well distributed across the United States. The South has the largest number of LPN/LVN programs, and the West contains the least.

Annual Tuition for LPN/LVN Programs by Financial Support: 5-Year Trend

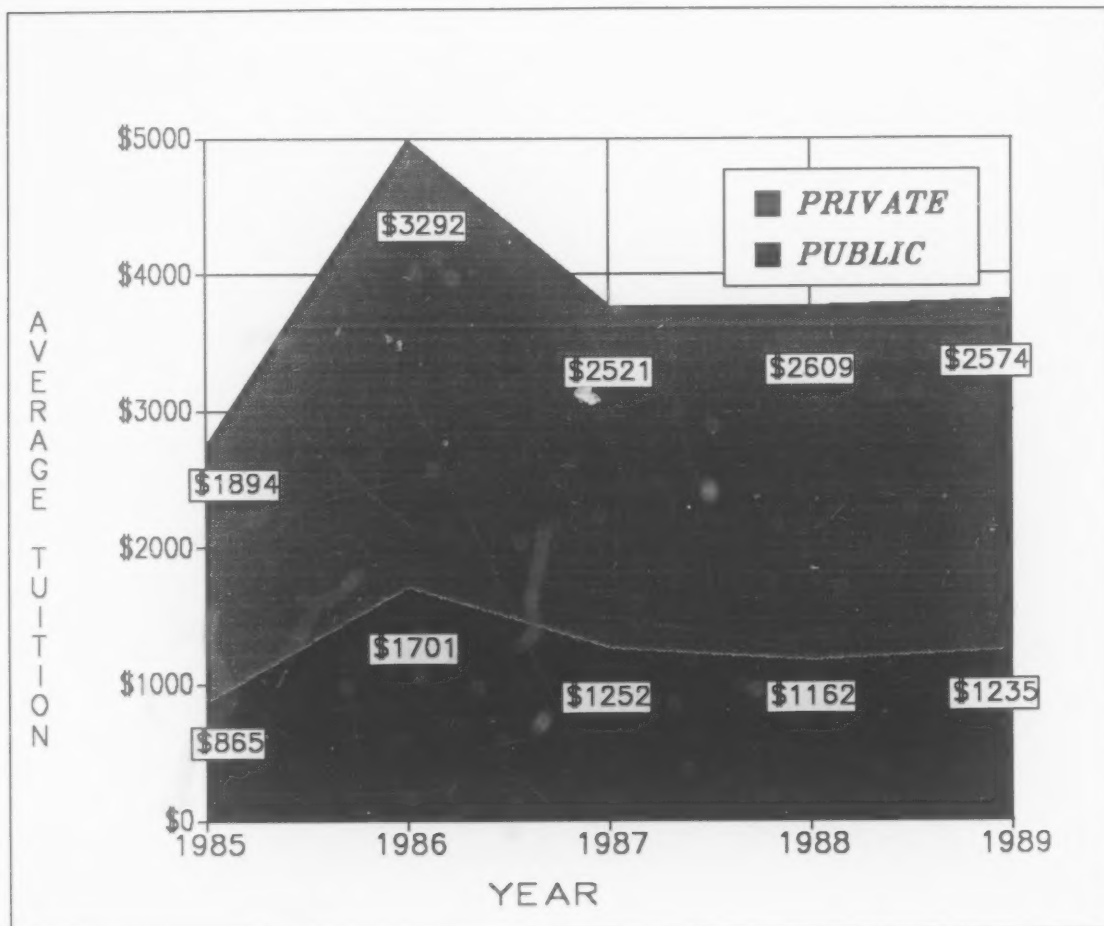


Figure 10. Annual Tuition for LPN/LVN Programs by Financial Support: 5-Year Trend

On average, tuition at private LPN/LVN programs is double the cost for public programs. The price for LPN/LVN education has remained relatively stable for the past three years.

Section 4-3
Numeric Tables



Table 1
LPN/LVN SCHOOLS AND PROGRAMS
WITH PERCENTAGE CHANGE FROM PREVIOUS YEAR, BY TYPE OF PROGRAM: 1970 TO 1989

YEAR ¹	SCHOOLS ²		PROGRAMS							
			All LPN/LVN Programs		Adult Programs ³		High School Programs ⁴		High School Extended Programs ⁵	
	Number	Percent Change	Number	Percent Change	Number	Percent Change	Number	Percent Change	Number	Percent Change
1970	1,172	+0.9	1,233	-0.1	1,103	-0.6	42	+10.5	88	+2.3
1971	1,191	+1.6	1,271	+3.1	1,131	+2.5	48	+14.3	92	+4.5
1972	1,196	+0.4	1,286	+1.2	1,142	+1.0	51	+6.2	93	+1.1
1973	1,191	-0.4	1,283	-0.2	1,135	-0.6	57	+11.8	91	-2.1
1974	1,206	+1.3	1,294	+0.9	1,137	+0.2	62	+8.8	95	+4.4
1975	1,228	+1.8	1,315	+1.6	1,156	+1.7	63	+1.6	96	+1.1
1976	1,236	+0.6	1,318	+0.2	1,155	-0.1	66	+4.8	97	+1.0
1977	1,234	-0.2	1,319	+0.1	1,155	+0.0	63	-4.5	101	+4.1
1978	1,232	-0.2	1,310	-0.7	1,156	+0.1	60	-4.8	94	-6.9
1979	1,222	-0.8	1,298	-0.9	1,147	-0.8	60	+0.0	91	-3.2
1980	1,221	-0.1	1,299	+0.1	1,153	+0.5	55	-8.3	91	+0.0
1981	1,231	+0.8	1,309	+0.8	1,163	+0.9	55	+0.0	91	+0.0
1982	1,221	-0.8	1,295	-1.1	1,153	-0.9	55	+0.0	91	+0.0
1983	1,218	-0.2	1,297	+0.2	1,154	+0.1	56	+0.0	87	-4.4
1984	1,162	-4.6	1,254	-3.3	1,114	-3.5	57	+1.8	83	-4.6
1985	1,128	-2.9	1,165	-7.1	1,048	-9.9	50	-12.3	67	-19.3
1986	1,058	-6.2	1,087	-6.7	947	-38.3	53	+6.0	58	-13.4
1987	1,035	-2.2	1,066	-1.7	922	-2.6	47	-17.5	66	+13.8
1988	1,039	-2.7	1,095	+0.4	989	+7.3	44	-6.4	62	-6.1
1989	1,048	+0.9	1,171	+6.9	1,050	+6.2	47	+6.8	74	+19.4

¹As of October 15.

²Excludes American Samoa, Guam, Puerto Rico, and the Virgin Islands.

³Adult programs are conducted primarily for adults and out-of-school youth and have not been planned as part of a high school curriculum.

⁴High School programs are conducted primarily for high school students and lead concurrently to a high school diploma and eligibility for writing the licensure examination.

⁵High School Extended programs are conducted primarily for high school students and lead to a high school diploma, but require some additional months of preparation after high school graduation.

Table 2
LPN/LVN PROGRAMS, BY NLN REGION AND STATE: 1980 TO 1989

NLN REGION AND STATE	NUMBER OF PROGRAMS									
	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989
United States¹	1,299	1,309	1,295	1,297	1,254	1,165	1,058	1,035	1,039	1,048
North Atlantic	239	233	232	236	234	224	192	180	179	180
Midwestern	281	280	288	286	281	256	235	233	232	236
Southern	575	585	567	564	533	503	459	451	461	468
Western	204	211	208	211	206	188	172	171	167	164
Alabama	25	25	25	25	23	22	22	22	22	22
Alaska	1	1	1	1	1	0	0	0	0	0
Arizona	12	11	12	12	12	12	10	10	9	9
Arkansas	27	29	29	29	28	28	27	28	27	27
California	86	90	94	95	93	79	76	78	75	73
Colorado	17	18	18	18	16	14	14	14	14	14
Connecticut	10	10	10	10	10	10	11	11	11	11
Delaware	5	5	5	5	5	3	3	3	3	3
District of Columbia	3	3	3	3	3	4	2	2	2	2
Florida	35	36	37	37	36	35	34	34	34	36
Georgia	52	53	49	48	45	44	41	40	40	41
Hawaii	4	4	4	4	4	4	4	4	4	4
Idaho	11	10	8	8	8	7	6	5	5	5
Illinois	45	44	44	42	41	39	32	31	30	32
Indiana	17	17	17	18	19	17	17	18	19	19
Iowa	27	27	29	30	27	25	25	25	25	25
Kansas	16	16	18	18	18	16	16	16	16	16
Kentucky	16	16	16	16	16	17	17	17	17	17
Louisiana	37	38	38	37	35	35	35	35	35	34
Maine	5	5	5	5	5	5	5	5	5	5
Maryland	21	21	20	20	20	17	14	14	14	15
Massachusetts	30	26	25	26	24	21	22	22	22	21
Michigan	36	37	37	36	35	32	27	27	26	26
Minnesota	27	27	27	26	26	26	26	26	26	26
Mississippi	14	14	14	13	12	12	12	13	13	14
Missouri	33	34	34	34	35	33	32	31	31	32
Montana	5	5	5	5	5	5	5	5	5	5
Nebraska	9	9	9	8	8	8	8	8	8	9
Nevada	7	6	5	4	4	4	4	3	3	3
New Hampshire	4	4	5	5	5	5	4	3	3	2
New Jersey	35	33	31	32	32	31	31	26	25	25
New Mexico	10	11	9	10	10	8	8	7	7	7
New York	92	90	90	90	89	86	60	57	56	57
North Carolina	39	45	46	46	28	26	24	23	23	27
North Dakota	7	6	7	7	7	5	3	3	3	3
Ohio	44	45	46	47	45	44	41	42	41	41
Oklahoma	31	31	32	35	34	26	25	25	27	27
Oregon	11	11	11	12	12	12	11	11	11	10
Pennsylvania	51	54	54	56	57	54	50	47	48	50
Rhode Island	1	1	1	1	1	1	1	1	1	1
South Carolina	31	31	31	30	28	32	20	20	21	21
South Dakota	6	6	6	6	6	2	1	1	1	2
Tennessee	11	12	12	12	25	23	20	22	23	22
Texas	158	157	142	138	131	111	100	91	98	97
Utah	5	6	6	6	6	6	6	6	6	6
Vermont	3	3	3	3	3	4	3	3	3	3
Virginia	58	58	56	58	52	56	49	48	48	49
Washington	29	28	28	29	28	24	22	22	22	22
West Virginia	20	20	20	20	20	19	19	19	19	19
Wisconsin	14	14	14	14	14	9	7	5	6	5
Wyoming	6	6	7	7	7	7	6	6	6	6
American Samoa	1	1	1	1	1	1	1	1	1	1
Guam	0	0	0	0	0	0	0	0	0	0
Puerto Rico	19	21	23	27	24	24	24	24	21	21
Virgin Islands	0	0	0	1	1	0	0	0	1	1

¹National and regional totals exclude American Samoa, Guam, Puerto Rico, and the Virgin Islands.

Table 3
LPN/LVN PROGRAMS, BY NLN REGION AND PRIMARY SOURCE OF FINANCIAL SUPPORT: 1980 TO 1989

NLN REGION BY TYPE OF FINANCIAL SUPPORT ¹	NUMBER OF PROGRAMS									
	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989
All Regions	1,298	1,309	1,295	1,297	1,254	1,165	1,058	1,035	1,039	1,048
Public	1,197	1,201	1,183	1,185	1,144	1,062	986	958	962	976
Private	101	108	112	112	110	103	72	77	77	72
North Atlantic	239	233	231	236	234	224	192	180	179	180
Public	218	214	209	209	209	189	162	152	150	154
Private	21	19	22	27	25	35	30	28	29	26
Midwestern	281	280	287	286	281	256	235	233	232	236
Public	261	260	266	263	256	237	225	220	224	226
Private	20	20	21	23	25	19	10	13	8	10
Southern	575	585	566	563	533	503	459	451	461	468
Public	526	529	511	512	485	464	436	425	431	439
Private	49	56	55	51	48	39	23	26	30	29
Western	203	211	211	211	206	182	172	171	167	164
Public	192	198	197	200	194	172	163	161	157	157
Private	11	13	14	11	12	10	9	10	10	7

¹Excludes American Samoa, Guam, Puerto Rico, and the Virgin Islands.

Table 4A
ADMINISTRATIVE CONTROL BY REGION

	NORTH ATLANTIC	MIDWEST	SOUTH	WEST	ALL REGIONS
Administrative Control					
Technical or Vocational School	62.8	46.6	53.9	23.8	49.0
Junior or Community College	12.8	45.8	33.5	67.1	38.0
Secondary School	13.9	4.7	4.9	6.7	6.7
Hospital	8.3	1.3	6.2	0	4.5
Government Agency	1.7	.4	.9	6	.9
Senior College or University	6	.8	.4	1.2	.7
Independent Agency	.0	.4	.2	6	.3

Table 4B
LPN/LVN PROGRAMS, BY NLN REGION AND TYPE OF ADMINISTRATIVE CONTROL: 1980 TO 1989

NLN REGION BY TYPE OF ADMINISTRATIVE CONTROL ¹	NUMBER OF PROGRAMS									
	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989
All Regions	1,299	1,309	1,295	1,297	1,254	1,165	1,058	1,035	1,039	1,048
Technical or vocational school	677	681	673	679	644	599	554	538	526	513
Junior or community college	402	404	398	404	400	373	354	362	384	397
Secondary school	66	67	73	69	83	88	80	71	67	70
Hospital	106	108	108	97	85	75	45	40	45	47
Government agency	19	19	17	17	18	11	6	13	8	9
Senior college or university	23	24	18	20	14	13	10	5	5	7
Independent agency	6	6	7	11	10	6	9	6	4	3
North Atlantic	239	233	231	236	234	224	192	180	179	180
Technical or vocational school	167	162	156	157	157	150	126	115	118	113
Junior or community college	19	21	22	22	22	20	20	19	19	23
Secondary school	24	22	27	29	29	29	26	27	24	25
Hospital	23	22	21	21	20	20	15	13	15	15
Government agency	3	2	3	3	4	3	2	5	3	3
Senior college or university	2	2	0	1	0	0	0	0	0	1
Independent agency	1	2	2	1	2	2	3	1	0	0
Midwestern	281	280	287	286	281	256	235	233	232	236
Technical or vocational school	152	151	153	152	152	124	118	118	112	110
Junior or community college	103	104	105	109	105	105	99	99	105	108
Secondary school	8	8	9	7	8	12	12	10	9	11
Hospital	11	11	14	10	10	10	3	3	3	3
Government agency	0	0	0	0	1	1	0	1	1	1
Senior college or university	5	5	5	5	4	3	2	1	1	2
Independent agency	2	1	1	3	1	1	1	1	1	1
Southern	575	585	566	564	533	503	459	451	461	468
Technical or vocational school	311	313	308	315	283	276	261	258	255	253
Junior or community college	145	149	140	142	141	133	126	132	149	156
Secondary school	26	29	27	24	34	36	32	26	23	23
Hospital	71	73	71	65	54	45	27	24	27	29
Government agency	12	13	10	10	9	7	4	7	3	4
Senior college or university	7	6	7	5	6	5	3	2	2	2
Independent agency	1	2	3	3	6	1	4	2	2	1
Western	204	211	211	211	206	182	172	171	167	164
Technical or vocational school	47	55	56	55	52	49	49	47	41	39
Junior or community college	135	130	131	131	132	115	107	112	111	110
Secondary school	6	8	10	9	12	11	10	8	11	11
Hospital	1	2	2	1	1	0	0	0	0	0
Government agency	4	4	4	4	4	0	0	0	1	1
Senior college or university	9	11	7	9	4	5	5	2	2	2
Independent agency	2	1	1	2	1	2	1	2	1	1

¹ Excludes American Samoa, Guam, Puerto Rico, and the Virgin Islands.

Table 5
ADMISSIONS TO LPN/LVN PROGRAMS
AND PERCENTAGE CHANGE FROM PREVIOUS YEAR: 1969-70 TO 1988-89

YEAR ¹	ADMISSIONS TO LPN/LVN PROGRAMS	
	Number ²	Percent Change
1969-70	54,934	+13.5
1970-71	59,128	+7.6
1971-72	60,593	+2.5
1972-73	59,379	-2.0
1973-74	59,190	-0.3
1974-75	60,322	+1.9
1975-76	61,353	+1.7
1976-77	60,166	-1.9
1977-78	60,610	+0.7
1978-79	57,081	-5.8
1979-80	56,316	-1.3
1980-81	58,479	+3.8
1981-82	60,426	+3.3
1982-83	61,453	+1.7
1983-84	57,865	-5.8
1984-85	47,034	-18.7
1985-86	44,477	-5.4
1986-87	42,452	-4.6
1987-88	43,774	+3.0
1988-89	47,602	+8.8

¹ Time period is September 1 through August 31 for academic years 1968-69 through 1969-70, and August 1 through July 31 for subsequent years.

² Excludes American Samoa, Guam, Puerto Rico, and the Virgin Islands.

Table 6
ANNUAL ADMISSIONS TO LPN/LVN PROGRAMS, BY NLN REGION AND STATE: 1979-80 TO 1988-89

NLN REGION AND STATE	NUMBER OF ADMISSIONS									
	1979-80	1980-81	1981-82	1982-83	1983-84	1984-85	1985-86	1986-87	1987-88	1988-89
United States¹	56,316	58,479	60,426	61,453	57,865	47,034	44,477	42,452	43,774	47,602
North Atlantic	11,358	11,207	11,921	12,434	11,920	10,131	9,332	7,789	7,985	8,972
Midwest	14,877	15,316	15,439	15,362	13,935	10,533	9,556	10,145	10,256	11,332
South	22,873	24,262	24,684	25,508	24,182	19,810	18,404	17,779	19,073	21,087
West	7,208	7,694	8,382	8,149	7,818	6,560	7,185	6,739	5,460	6,211
Alabama	1,794	1,816	1,784	2,078	1,782	1,432	1,345	1,304	1,517	1,909
Alaska	24	31	36	24	23	0	0	0	0	0
Arizona	428	326	302	424	378	474	338	360	403	342
Arkansas	1,111	1,170	1,321	1,331	1,198	729	691	755	771	870
California	3,977	4,359	4,875	4,471	4,054	3,749	3,830	3,372	3,658	3,538
Colorado	514	535	583	628	574	313	302	466	333	407
Connecticut	374	393	437	420	402	383	425	335	319	428
Delaware	122	161	254	193	180	104	88	99	116	113
District of Columbia	138	118	124	144	122	116	277	159	283	107
Florida	2,545	2,665	2,842	2,713	2,759	2,392	2,218	2,212	2,343	2,710
Georgia	1,991	2,094	2,083	2,066	1,977	1,740	1,708	1,581	1,412	1,900
Hawaii	144	147	118	122	96	131	141	109	112	110
Idaho	188	183	185	182	181	150	137	107	119	139
Illinois	2,789	2,791	2,979	2,780	2,481	2,006	1,585	1,728	1,540	1,662
Indiana	988	1,087	1,131	1,119	1,188	988	862	932	1,078	1,170
Iowa	901	880	788	882	741	552	607	1,007	771	930
Kansas	314	535	548	562	451	451	551	546	609	680
Kentucky	879	965	1,180	1,098	1,028	873	874	895	886	930
Louisiana	1,791	1,863	1,813	2,122	1,904	1,745	1,564	1,383	1,824	1,822
Maine	333	341	334	235	222	206	190	179	185	270
Maryland	814	598	855	818	573	360	286	261	256	321
Massachusetts	1,240	1,181	1,151	1,206	995	815	852	758	767	817
Michigan	2,123	2,040	1,898	1,785	1,879	1,440	1,437	1,163	1,250	1,040
Minnesota	1,528	1,578	1,814	1,573	1,556	1,141	1,185	1,213	1,354	1,691
Mississippi	1,305	1,110	984	912	796	656	491	617	531	621
Missouri	1,180	1,188	1,093	1,112	1,220	1,183	931	995	901	1,092
Montana	140	233	263	240	246	233	235	180	191	241
Nebraska	481	551	638	638	558	338	434	369	433	568
Nevada	70	101	81	89	73	87	64	56	87	69
New Hampshire	180	205	239	258	148	42	106	62	89	124
New Jersey	1,720	1,698	1,588	1,740	1,873	1,690	1,504	1,278	1,343	1,448
New Mexico	183	180	180	258	274	183	234	242	209	136
New York	4,014	3,928	4,071	3,888	4,888	4,171	3,413	2,950	2,937	3,441
North Carolina	1,254	1,184	1,081	1,286	1,001	750	608	569	576	596
North Dakota	307	317	388	330	385	315	56	235	220	20
Ohio	1,671	1,781	1,988	2,098	2,638	1,979	1,672	1,640	1,856	2,176
Oklahoma	481	1,057	981	1,087	828	944	825	683	804	893
Oregon	289	301	380	328	138	181	390	310	66	0
Pennsylvania	1,882	1,948	1,772	1,981	1,208	2,400	2,249	1,918	1,866	2,136
Rhode Island	108	102	110	100	100	100	114	0	0	0
South Carolina	481	481	488	301	780	848	600	544	565	727
South Dakota	278	381	381	380	271	27	14	20	26	24
Tennessee	1,371	1,380	1,338	1,148	1,185	1,180	961	1,025	1,187	1,378
Texas	4,828	5,020	5,171	5,887	5,262	4,371	4,294	4,113	4,471	4,408
Utah	378	380	403	405	301	334	281	289	328	444
Vermont	180	180	177	208	163	104	114	51	80	88
Virginia	1,588	1,732	1,401	1,820	1,781	1,508	1,477	1,350	1,313	1,426
Washington	842	871	881	878	1,071	698	1,175	1,116	828	722
West Virginia	585	552	457	585	1,124	481	462	481	517	575
Wisconsin	1,188	1,188	1,221	1,099	951	362	222	197	218	279
Wyoming	89	107	114	107	126	77	88	112	126	63
American Samoa	20	19	28	18	12	12	7	7	7	15
Guam	14	0	0	0	0	0	0	0	0	0
Puerto Rico	1,198	1,198	1,983	1,923	1,940	1,637	1,518	1,302	693	842
Virgin Islands	0	0	0	0	20	0	0	0	22	22

¹ Excludes and approximates include American Samoa, Guam, Puerto Rico, and the Virgin Islands.

Table 7
ANNUAL ADMISSIONS TO LPN/LVN PROGRAMS, BY NLN REGION
AND PRIMARY SOURCE OF FINANCIAL SUPPORT: 1979-80 TO 1988-89

NLN REGION BY TYPE OF FINANCIAL SUPPORT ¹	NUMBER OF ANNUAL ADMISSIONS									
	1979-80	1980-81	1981-82	1982-83	1983-84	1984-85	1985-86	1986-87	1987-88	1988-89
All Regions	56,316	58,479	60,426	61,453	57,865	47,834	44,477	42,452	43,774	47,662
Public	52,266	54,419	55,465	56,109	52,554	42,649	41,056	39,103	40,116	43,678
Private	4,050	4,060	4,961	5,344	5,311	4,385	3,421	3,349	3,658	3,924
North Atlantic	11,358	11,207	11,921	12,434	11,920	10,131	9,332	7,789	7,985	8,972
Public	10,270	10,513	10,950	11,221	10,049	8,162	7,998	6,651	6,801	7,585
Private	1,088	694	962	1,213	1,871	1,969	1,334	1,138	1,184	1,387
Midwest	14,877	15,316	15,439	15,362	13,935	10,533	9,556	10,145	10,256	11,332
Public	13,880	14,316	14,470	14,293	12,660	10,105	9,271	9,692	10,000	10,857
Private	997	1,000	969	1,069	1,075	428	285	453	256	475
South	22,873	24,262	24,684	25,508	24,192	19,810	18,404	17,779	19,073	21,087
Public	21,678	22,654	22,702	23,476	22,765	18,890	17,708	17,095	18,239	20,065
Private	1,195	1,608	1,982	2,032	1,427	920	696	684	834	1,022
West	7,208	7,694	8,382	8,149	7,818	6,560	7,185	6,739	6,460	6,211
Public	6,438	6,936	7,334	7,119	6,880	5,492	6,079	5,665	5,076	5,171
Private	770	758	1,048	1,030	938	1,068	1,106	1,074	1,384	1,040

¹ Excludes American Samoa, Guam, Puerto Rico, and the Virgin Islands.

Table 8
ANNUAL ADMISSIONS TO LPN/LVN PROGRAMS, BY NLN REGION
AND TYPE OF ADMINISTRATIVE CONTROL: 1979-80 TO 1988-89

NLN REGION BY TYPE OF ADMINISTRATIVE CONTROL ¹	NUMBER OF ANNUAL ADMISSIONS									
	1979-80	1980-81	1981-82	1982-83	1983-84	1984-85	1985-86	1986-87	1987-88	1988-89
All Regions	56,316	58,479	60,426	61,453	57,965	47,034	44,477	42,452	43,774	47,602
Technical or vocational school	33,635	34,544	35,837	35,713	33,471	27,000	25,156	23,722	25,251	27,528
Junior or community college	15,146	16,241	16,116	17,201	15,319	12,916	12,941	13,385	13,620	13,895
Secondary school	2,466	2,446	2,790	2,783	4,042	3,626	3,379	2,700	2,330	3,127
Hospital	3,115	3,352	3,918	3,729	2,617	1,510	1,178	1,000	1,230	1,690
Government agency	834	923	1,111	1,027	1,772	1,498	1,211	1,237	1,056	937
Senior college or university	834	777	481	729	359	208	297	142	137	195
Independent agency	286	196	173	271	285	276	315	266	150	230
North Atlantic	11,358	11,207	11,921	12,434	11,920	10,131	9,332	7,789	7,985	8,972
Technical or vocational school	8,056	7,974	8,630	8,699	7,821	6,810	5,976	5,172	5,773	5,957
Junior or community college	780	965	953	1,367	1,449	1,108	1,174	882	792	873
Secondary school	1,018	947	1,058	1,111	1,602	1,468	1,487	1,199	858	1,251
Hospital	1,002	940	989	1,031	814	639	525	397	482	741
Government agency	89	50	254	103	192	70	83	128	80	82
Senior college or university	351	296	0	44	0	0	0	0	0	68
Independent agency	62	35	37	79	42	36	87	11	0	0
Midwest	14,877	15,316	15,439	15,362	13,935	10,533	9,556	10,145	10,256	11,332
Technical or vocational school	8,938	9,301	9,095	8,902	8,074	5,704	5,368	5,585	5,589	6,267
Junior or community college	4,744	4,868	4,956	5,246	4,446	3,843	3,575	3,698	4,005	4,066
Secondary school	358	373	409	322	505	525	472	452	415	689
Hospital	608	597	802	701	494	110	69	89	89	109
Government agency	0	0	0	0	264	263	0	258	107	108
Senior college or university	76	101	99	110	90	61	39	42	25	0
Independent agency	153	76	78	81	62	27	33	21	26	93
South	22,873	24,262	24,584	25,508	24,192	19,810	18,404	17,779	19,073	21,087
Technical or vocational school	14,155	14,348	14,786	15,067	14,751	11,817	11,026	10,722	11,340	12,852
Junior or community college	5,629	6,333	5,950	6,403	5,626	4,971	4,712	5,025	5,612	5,923
Secondary school	815	860	929	937	1,170	986	795	587	553	683
Hospital	1,501	1,815	2,075	1,979	1,286	761	584	514	659	840
Government agency	515	661	623	611	1,002	1,165	1,128	851	837	709
Senior college or university	239	198	263	440	219	91	56	30	29	40
Independent agency	19	47	58	71	138	19	103	50	43	40
West	7,208	7,694	8,382	8,149	7,818	6,560	7,185	6,739	6,460	6,211
Technical or vocational school	2,486	2,921	3,326	3,045	2,825	2,669	2,786	2,243	2,549	2,452
Junior or community college	3,993	4,075	4,257	4,185	3,798	2,994	3,480	3,780	3,211	3,033
Secondary school	275	266	394	413	765	647	625	462	504	504
Hospital	4	0	52	18	23	0	0	0	0	0
Government agency	230	212	234	313	314	0	0	0	32	38
Senior college or university	168	182	119	135	50	56	202	70	83	87
Independent agency	52	38	0	40	43	194	92	184	81	97

¹ Excludes American Samoa, Guam, Puerto Rico, and the Virgin Islands.

Table 9
FALL ADMISSIONS TO LPN/LVN PROGRAMS
WITH PERCENTAGE CHANGE FROM PREVIOUS YEAR: 1975 TO 1989

YEAR ¹	FALL ADMISSIONS	
	Number ²	Percent Change
1975	39,421	- 0.0
1976	39,163	- 0.6
1977	38,943	- 0.6
1978	36,589	- 6.0
1979	36,177	- 1.1
1980	37,044	+ 2.4
1981	38,236	+ 3.2
1982	39,560	+ 3.4
1983	37,788	- 4.5
1984	33,351	- 11.7
1985	29,067	- 12.8
1986	27,816	- 4.3
1987	28,274	+ 1.7
1988	30,746	+ 8.7
1989	31,905	+ 3.8

¹ Time period is August 1 through December 31

² Excludes American Samoa, Guam, Puerto Rico, and the Virgin Islands.

Table 10
FALL ADMISSIONS TO LPN/LVN PROGRAMS, BY NLN REGION AND STATE: 1980 TO 1989

NLN REGION AND STATE	NUMBER OF FALL ADMISSIONS									
	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989
United States¹	37,044	38,236	39,560	37,788	33,351	29,067	27,816	28,274	30,746	31,905
North Atlantic	8,382	8,717	9,122	8,868	8,111	7,007	6,423	5,572	6,680	7,090
Midwest	10,223	10,191	10,203	9,667	7,895	6,658	6,466	7,125	7,620	8,192
South	14,242	14,853	15,758	14,815	13,253	11,862	11,477	11,944	12,616	12,745
West	4,197	4,475	4,477	4,438	4,092	3,540	3,450	3,633	3,830	3,878
Alabama	962	952	1,157	1,046	837	708	728	675	822	904
Alaska	22	32	7	23	9	0	0	0	0	0
Arizona	246	162	175	210	181	150	205	146	240	234
Arkansas	739	921	931	883	610	558	564	607	632	578
California	2,140	2,207	2,201	2,052	1,820	1,891	1,780	1,812	1,968	2,137
Colorado	343	404	381	401	286	201	236	322	346	271
Connecticut	359	406	399	0	40	102	132	32	194	61
Delaware	110	163	126	131	98	76	75	80	98	63
District of Columbia	88	111	120	99	101	113	196	146	191	124
Florida	1,103	1,119	1,237	1,183	1,191	1,062	1,119	1,193	1,328	1,255
Georgia	1,132	1,188	1,115	1,057	1,066	986	897	749	713	680
Hawaii	98	84	93	96	101	119	107	83	74	109
Idaho	134	141	143	121	92	82	73	71	101	107
Illinois	2,108	2,073	1,969	1,825	1,472	1,261	1,117	1,242	1,094	1,213
Indiana	699	706	698	757	704	653	596	642	823	948
Iowa	530	505	469	498	441	384	444	478	525	583
Kansas	271	308	358	338	264	281	434	377	376	445
Kentucky	617	729	732	705	477	506	585	469	678	614
Louisiana	714	821	893	768	743	1,019	593	809	625	925
Maine	190	185	185	185	173	132	198	124	202	210
Maryland	516	544	522	484	417	261	208	171	231	318
Massachusetts	1,180	1,112	1,154	1,046	870	780	730	759	862	824
Michigan	1,273	1,098	1,221	1,013	911	920	793	765	810	551
Minnesota	1,224	1,252	1,185	1,093	949	916	804	1,068	1,160	1,276
Mississippi	583	582	616	472	507	348	372	478	478	472
Missouri	1,023	1,015	1,070	991	895	687	720	724	724	874
Montana	134	146	141	181	113	127	106	167	158	153
Nebraska	285	315	323	323	234	206	240	245	359	351
Nevada	87	81	69	60	62	52	60	46	31	21
New Hampshire	157	175	157	94	99	22	102	56	89	94
New Jersey	1,164	1,066	1,159	1,187	1,242	1,009	981	984	1,095	1,257
New Mexico	173	148	140	159	198	103	134	145	197	150
New York	3,384	3,720	3,952	4,039	3,662	3,223	2,673	2,273	2,792	3,175
North Carolina	850	904	878	881	705	579	526	451	550	540
North Dakota	188	229	202	218	143	46	68	26	76	18
Ohio	1,769	1,814	1,897	1,816	1,366	1,173	1,096	1,369	1,478	1,721
Oklahoma	729	674	736	699	637	710	621	590	658	785
Oregon	89	87	137	168	136	105	67	101	66	0
Pennsylvania	1,569	1,619	1,693	1,873	1,703	1,356	1,285	1,038	1,083	1,178
Rhode Island	100	116	130	100	102	116	0	0	0	0
South Carolina	699	736	760	758	619	547	487	499	504	511
South Dakota	239	245	239	232	161	14	20	24	23	67
Tennessee	533	643	555	535	582	675	596	610	706	696
Texas	3,180	3,105	3,559	3,296	3,056	2,267	2,608	3,227	2,940	2,675
Utah	54	123	185	165	153	111	122	189	180	165
Vermont	81	92	95	114	66	78	51	80	64	104
Virginia	1,452	1,542	1,623	1,525	1,474	1,333	1,230	1,223	1,330	1,353
Washington	563	644	585	686	730	535	496	479	388	472
West Virginia	433	418	470	523	361	303	341	401	421	439
Wisconsin	614	657	608	563	391	117	131	165	172	145
Wyoming	114	117	110	114	91	64	64	72	81	59
American Samoa	19	20	17	17	17	17	7	7	7	8
Guam	0	0	0	0	0	0	0	0	0	0
Puerto Rico	464	367	625	801	699	1,624	911	832	459	528
Virgin Islands	0	0	0	19	20	0	0	0	13	13

¹ National and regional totals exclude American Samoa, Guam, Puerto Rico, and the Virgin Islands.

Table 11
FALL ADMISSIONS TO LPN/LVN PROGRAMS,
BY NLN REGION AND PRIMARY SOURCE OF FINANCIAL SUPPORT: 1980 TO 1989

NLN REGION BY TYPE OF FINANCIAL SUPPORT ¹	NUMBER OF FALL ADMISSIONS									
	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989
All Regions	37,044	38,236	39,560	37,788	33,351	29,067	27,816	28,274	30,746	31,905
Public	34,301	35,175	36,346	34,573	30,550	26,355	25,766	25,890	27,993	29,469
Private	2,743	3,061	3,214	3,215	2,801	2,712	2,050	2,384	2,753	2,436
North Atlantic	8,382	8,717	9,122	8,868	8,111	7,007	6,423	5,572	6,680	7,090
Public	7,682	7,948	8,211	7,873	6,821	5,605	5,380	4,592	5,416	5,915
Private	700	769	911	995	1,290	1,402	1,043	980	1,264	1,175
Midwest	10,223	10,191	10,203	9,667	7,895	6,658	6,466	7,125	7,620	8,192
Public	9,564	9,441	9,582	8,963	7,362	6,400	6,266	6,847	7,440	7,856
Private	659	750	621	704	533	258	200	278	180	336
South	14,242	14,853	15,758	14,815	13,253	11,862	11,477	11,944	12,616	12,745
Public	13,256	13,678	14,578	13,652	12,594	11,248	11,111	11,343	11,890	12,124
Private	986	1,175	1,180	1,163	659	614	366	601	726	621
West	4,197	4,475	4,477	4,438	4,029	3,540	3,450	3,633	3,830	3,878
Public	3,799	4,108	3,975	4,085	3,773	3,102	3,009	3,108	3,247	3,574
Private	398	367	502	353	319	438	441	525	583	304

¹ Excludes American Samoa, Guam, Puerto Rico, and the Virgin Islands.

Table 12
FALL ADMISSIONS TO LPN/LVN PROGRAMS, BY NLN REGION AND TYPE OF ADMINISTRATIVE CONTROL: 1980 TO 1989

NLN REGION BY TYPE OF ADMINISTRATIVE CONTROL ¹	NUMBER OF FALL ADMISSIONS									
	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989
All Regions	37,044	38,236	39,560	37,788	33,351	29,067	27,816	28,274	30,746	31,905
Technical or vocational school	21,451	22,064	22,985	21,437	18,341	16,678	15,882	15,655	17,469	18,141
Junior or community college	10,148	10,427	10,566	10,815	9,820	7,843	7,904	8,582	9,681	9,553
Secondary school	2,123	2,002	2,252	2,178	2,491	2,512	2,335	2,166	1,749	2,336
Hospital	2,422	2,643	2,906	2,328	1,501	1,110	758	794	1,191	1,115
Government agency	273	476	290	315	786	644	611	850	396	416
Senior college or university	539	526	395	540	248	164	150	71	145	185
Independent agency	88	98	166	175	164	116	176	156	115	159
North Atlantic	8,382	8,717	9,122	8,868	8,111	7,007	6,423	5,572	6,680	7,090
Technical or vocational school	5,718	5,967	6,116	5,681	5,041	4,515	4,119	3,458	4,753	4,785
Junior or community college	669	667	908	1,096	1,165	731	726	841	577	779
Secondary school	952	879	1,067	1,109	1,082	1,135	1,082	993	655	791
Hospital	827	904	951	826	686	523	358	314	615	582
Government agency	46	93	35	40	102	66	53	152	80	88
Senior college or university	146	150	0	36	0	0	0	0	0	65
Independent agency	24	37	45	80	35	37	85	14	0	—
Midwest	10,223	10,191	10,203	9,667	7,895	6,658	6,466	7,125	7,620	8,192
Technical or vocational college	6,147	6,047	5,839	5,508	4,406	3,588	3,675	4,153	4,381	4,873
Junior or community college	3,227	3,311	3,368	3,365	2,815	2,534	2,382	2,521	2,796	2,750
Secondary school	279	218	275	190	232	335	351	342	258	395
Hospital	426	473	586	480	255	61	22	22	30	27
Government agency	0	0	0	0	88	80	0	87	65	70
Senior college or university	103	100	95	85	83	60	36	0	50	29
Independent agency	41	42	40	39	16	0	0	0	40	48
South	14,242	14,853	15,758	14,815	13,253	11,862	11,477	11,944	12,616	12,745
Technical or vocational school	8,271	8,579	9,320	8,736	7,619	7,246	6,737	6,552	6,874	7,265
Junior or community college	3,836	3,888	3,957	3,786	3,451	2,781	3,034	3,644	4,349	4,086
Secondary school	613	709	689	728	884	761	644	598	528	567
Hospital	1,168	1,227	1,325	1,004	521	526	378	458	546	506
Government agency	177	295	225	193	525	496	558	611	228	232
Senior college or university	176	136	201	312	140	43	60	29	40	40
Independent agency	0	19	41	56	113	7	66	52	51	39
West	4,197	4,475	4,477	4,438	4,029	3,540	3,450	3,633	3,830	3,878
Technical or vocational school	1,315	1,451	1,710	1,512	1,275	1,329	1,351	1,492	1,461	1,218
Junior or community college	2,416	2,561	2,333	2,568	2,389	1,797	1,762	1,776	1,959	1,928
Secondary school	279	196	221	151	293	261	258	233	308	583
Hospital	0	39	44	18	39	0	0	0	0	—
Government agency	50	88	30	82	71	0	0	0	23	26
Senior college or university	114	140	99	107	25	61	54	42	55	51
Independent agency	23	0	40	0	0	72	25	90	24	72

¹ Excludes American Samoa, Guam, Puerto Rico, and the Virgin Islands.

Table 13
ENROLLMENTS IN LPN/LVN PROGRAMS
WITH PERCENTAGE CHANGE FROM PREVIOUS YEAR: 1970 TO 1989

YEAR	ENROLLMENTS	
	Number ¹	Percent Change
1970	52,526	+ 10.3
1971	57,114	+ 8.7
1972	57,287	+ 0.3
1973	56,267	- 1.8
1974	57,902	+ 2.9
1975	58,460	+ 1.0
1976	58,423	- 0.1
1977	56,943	- 2.5
1978	54,543	- 4.2
1979	52,202	- 4.3
1980	52,565	+ 0.7
1981	55,024	+ 4.7
1982	57,367	+ 4.2
1983	55,446	- 3.4
1984	48,840	- 11.9
1985	39,345	- 19.4
1986	38,510	- 2.1
1987	40,035	+ 4.0
1988	42,808	+ 6.9
1989	46,720	+ 9.1

¹ Excludes American Samoa, Guam, Puerto Rico, and the Virgin Islands.

Table 14
ENROLLMENTS IN LPN/LVN PROGRAMS, BY NLN REGION AND STATE: 1980-1989

NLN REGION AND STATE	NUMBER OF ENROLLMENTS									
	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989
United States¹	52,565	55,024	57,367	55,446	48,840	39,345	38,510	40,035	42,808	46,720
North Atlantic	11,339	11,867	12,331	12,383	11,177	8,986	8,125	7,731	8,615	9,595
Midwest	13,439	14,098	14,086	13,711	11,279	8,625	8,629	9,787	10,583	11,370
South	20,753	21,664	23,000	22,015	19,393	16,304	15,562	16,241	17,574	19,242
West	7,034	7,395	7,950	7,837	6,991	5,430	6,194	6,276	5,936	6,513
Alabama	1,444	1,493	1,636	1,641	1,178	1,018	1,010	1,131	1,254	1,578
Alaska	20	23	22	22	7	0	0	0	0	0
Arizona	331	325	319	255	301	239	280	343	283	360
Arkansas	988	1,107	1,187	1,154	762	596	624	894	699	837
California	4,226	4,329	4,841	4,137	3,861	3,340	3,431	3,087	3,328	4,013
Colorado	424	514	533	565	397	199	282	504	368	419
Connecticut	383	409	422	332	328	302	249	242	207	294
Delaware	146	228	272	270	210	63	60	90	86	149
District of Columbia	94	120	119	118	113	140	244	148	202	110
Florida	2,192	2,398	2,427	2,465	2,266	1,905	1,658	1,924	2,070	2,299
Georgia	1,714	1,662	1,704	1,719	1,519	1,332	1,170	1,226	1,318	1,380
Hawaii	137	109	120	117	93	117	126	110	109	112
Idaho	154	166	164	174	128	112	107	97	116	117
Illinois	2,531	2,734	2,738	2,471	2,059	1,523	1,335	1,594	1,570	1,697
Indiana	953	1,030	1,021	1,068	944	883	803	936	1,118	1,233
Iowa	754	728	674	849	589	427	626	925	877	853
Kansas	435	484	528	467	395	347	619	543	571	610
Kentucky	769	979	1,005	803	748	755	701	771	781	842
Louisiana	1,347	1,547	1,577	1,523	1,419	1,340	1,132	1,193	1,270	1,585
Maine	214	220	222	211	192	151	184	168	213	254
Maryland	697	714	639	670	596	379	306	247	299	397
Massachusetts	1,241	1,122	1,141	1,055	881	774	746	781	875	813
Michigan	1,803	1,707	1,651	1,481	1,501	1,304	1,256	1,148	1,250	1,034
Minnesota	1,401	1,427	1,361	1,302	1,078	927	1,004	1,145	1,429	1,768
Mississippi	876	933	820	716	741	513	523	520	400	566
Missouri	1,214	1,275	1,254	1,219	1,156	957	894	869	977	1,086
Montana	170	212	199	196	178	171	166	161	230	229
Nebraska	415	493	545	533	415	303	388	462	476	465
Nevada	86	97	68	49	62	52	60	52	42	73
New Hampshire	181	212	235	203	134	51	103	102	122	141
New Jersey	1,537	1,503	1,552	1,586	1,831	1,220	1,115	1,393	1,561	1,869
New Mexico	190	142	190	275	263	125	248	260	228	137
New York	4,603	4,895	5,079	5,132	4,407	4,009	3,395	3,027	3,329	3,717
North Carolina	1,069	1,128	1,103	1,078	860	634	560	504	563	581
North Dakota	242	303	263	327	206	126	82	166	165	21
Ohio	2,450	2,644	2,785	2,824	2,155	1,643	1,463	1,777	1,925	2,316
Oklahoma	937	906	981	994	808	729	730	712	837	890
Oregon	195	155	183	206	180	129	240	256	56	0
Pennsylvania	2,717	2,948	3,038	3,206	2,898	2,085	1,948	1,698	1,938	2,148
Rhode Island	94	113	125	96	96	98	0	0	0	0
South Carolina	869	926	964	961	710	617	573	556	627	755
South Dakota	278	265	281	282	193	13	20	24	26	66
Tennessee	992	1,137	1,456	691	1,110	1,033	763	893	1,045	1,118
Texas	4,212	3,968	4,471	4,702	4,370	3,414	3,610	3,477	4,273	4,070
Utah	225	319	375	374	338	287	259	279	335	376
Vermont	129	163	170	174	162	93	81	82	82	100
Virginia	2,073	2,211	2,474	2,294	1,981	1,644	1,766	1,776	1,763	1,835
Washington	752	774	718	859	856	596	915	1,032	701	605
West Virginia	574	566	589	604	408	395	434	417	475	509
Wisconsin	963	1,049	1,034	888	657	172	139	198	199	221
Wyoming	124	112	102	108	100	63	80	95	140	72
American Samoa	29	30	25	24	17	17	14	14	14	15
Guam	0	0	0	0	0	0	0	0	0	0
Puerto Rico	1,280	1,308	1,355	1,522	1,661	2,125	1,801	1,607	1,043	1,341
Virgin Islands	0	0	0	19	20	0	0	0	13	13

¹ National and regional totals exclude American Samoa, Guam, Puerto Rico, and the Virgin Islands.

Table 15

ENROLLMENTS IN LPN/LVN PROGRAMS, BY NLN REGION AND PRIMARY SOURCE OF FINANCIAL SUPPORT: 1980 TO 1989

NLN REGION BY TYPE OF FINANCIAL SUPPORT ¹	NUMBER OF ENROLLMENTS									
	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989
All Regions	52,565	55,024	57,367	55,446	48,840	39,345	38,510	40,835	42,900	46,720
Public	48,986	51,163	52,886	51,103	44,778	35,926	35,785	37,133	39,249	43,132
Private	3,579	3,861	4,481	4,343	4,062	3,419	2,725	2,902	3,559	3,588
North Atlantic	11,339	11,867	12,331	12,383	11,177	8,986	8,125	7,731	8,615	9,595
Public	10,477	11,048	11,342	11,280	9,640	7,401	7,046	6,659	7,214	8,210
Private	862	819	989	1,103	1,537	1,585	1,079	1,072	1,401	1,385
Midwest	13,439	14,098	14,086	13,711	11,279	8,625	8,629	9,787	10,583	11,370
Public	12,586	13,132	13,234	12,758	10,508	8,282	8,378	9,386	10,289	10,974
Private	853	966	852	953	771	343	251	401	294	396
South	20,753	21,204	23,000	22,015	19,393	16,304	15,562	16,241	17,674	19,242
Public	19,607	20,153	21,317	20,414	18,368	15,570	15,037	15,613	16,810	18,266
Private	1,146	1,051	1,683	1,601	1,025	734	525	628	864	976
West	7,034	7,395	7,950	7,337	6,991	5,430	6,194	6,276	5,936	6,513
Public	6,316	6,710	6,993	6,651	6,262	4,673	5,324	5,475	4,936	5,682
Private	718	685	957	686	729	757	870	801	1,000	831

¹ Excludes American Samoa, Guam, Puerto Rico, and the Virgin Islands.

Table 16
ENROLLMENTS IN LPN/LVN PROGRAMS, BY NLN REGION AND ADMINISTRATIVE CONTROL: 1980 TO 1989

NLN REGION BY TYPE OF ADMINISTRATIVE CONTROL ¹	NUMBER OF ENROLLMENTS									
	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989
All Regions	52,965	55,624	57,367	55,446	48,840	39,345	36,510	40,835	42,000	45,728
Technical or vocational school	30,892	32,729	33,774	31,876	27,254	22,495	21,405	21,931	24,047	26,501
Junior or community college	14,294	14,569	15,048	15,376	13,574	10,499	11,347	12,979	13,297	13,719
Secondary school	3,004	3,096	3,533	3,296	3,771	3,624	3,391	3,134	2,673	3,675
Hospital	2,905	3,098	3,599	3,025	1,991	1,184	891	933	1,396	1,548
Government agency	584	714	784	962	1,669	1,183	940	700	1,061	840
Senior college or university	719	655	430	642	342	183	298	109	147	199
Independent agency	167	163	199	269	239	177	238	249	187	238
North Atlantic	11,339	11,867	12,331	12,383	11,177	8,986	8,125	7,731	8,615	9,595
Technical or vocational school	7,866	8,347	8,556	8,564	7,375	5,949	5,204	5,043	6,068	6,421
Junior or community college	791	852	997	1,123	1,245	863	890	782	804	999
Secondary school	1,417	1,324	1,492	1,441	1,549	1,590	1,518	1,345	1,010	1,352
Hospital	940	968	1,001	887	723	489	372	394	655	676
Government agency	67	101	241	245	252	72	59	153	78	83
Senior college or university	234	239	0	36	0	0	0	0	0	64
Independent agency	24	36	44	87	33	23	82	14	0	0
Midwest	13,439	14,096	14,086	13,711	11,279	8,625	8,629	9,787	10,583	11,370
Technical or vocational college	8,215	8,653	8,270	7,943	6,569	4,677	4,837	5,245	5,719	6,550
Junior or community college	4,176	4,381	4,542	4,692	3,683	3,085	3,273	3,738	4,181	3,850
Secondary school	336	320	411	290	394	488	416	514	404	689
Hospital	526	582	712	626	324	91	59	68	95	92
Government agency	0	0	0	0	188	206	0	190	96	104
Senior college or university	102	100	93	92	88	53	35	18	34	29
Independent agency	84	62	58	68	33	25	9	14	54	56
South	20,753	21,664	23,000	22,015	19,393	16,304	15,562	16,241	17,674	19,242
Technical or vocational school	12,536	13,143	14,041	12,913	11,084	9,754	9,031	9,634	10,085	11,382
Junior or community college	5,182	5,250	5,272	5,539	4,860	3,890	4,084	4,833	5,260	5,582
Secondary school	997	1,147	1,146	1,142	1,229	1,068	939	882	739	789
Hospital	1,436	1,523	1,835	1,494	893	604	460	471	646	780
Government agency	368	442	421	462	981	905	881	357	856	630
Senior college or university	223	131	228	386	211	76	84	28	38	40
Independent agency	11	28	57	79	135	7	83	36	50	39
West	7,034	7,395	7,950	7,337	6,991	5,430	6,194	6,276	5,936	6,513
Technical or vocational school	2,275	2,586	2,907	2,456	2,226	2,115	2,333	2,009	2,175	2,148
Junior or community college	4,145	4,086	4,237	4,022	3,786	2,661	3,100	3,626	3,052	3,288
Secondary school	254	305	484	423	599	478	518	393	520	845
Hospital	3	25	51	18	51	0	0	0	0	0
Government agency	149	171	122	255	248	0	0	0	31	23
Senior college or university	160	185	109	128	43	54	179	63	75	66
Independent agency	48	37	40	35	38	122	64	185	83	143

¹ Excludes American Samoa, Guam, Puerto Rico, and the Virgin Islands.

Table 17
GRADUATIONS FROM LPN/LVN PROGRAMS WITH PERCENTAGE CHANGE FROM PREVIOUS YEAR: 1969-70 TO 1988-89

YEAR ¹	GRADUATIONS ²		YEAR ¹	GRADUATIONS ²	
	Number	Percent Change		Number	Percent Change
1969-70	36,456	+ 6.1	1979-80	41,892	- 5.3
1970-71	37,954	+ 4.1	1980-81	41,002	- 2.1
1971-72	43,673	+ 15.1	1981-82	43,299	+ 5.6
1972-73	45,565	+ 4.3	1982-83	45,174	+ 4.3
1973-74	45,002	- 1.2	1983-84	44,654	- 2.5
1974-75	45,375	+ 0.8	1984-85	36,955	- 17.2
1975-76	47,145	+ 3.9	1985-86	29,599	- 19.9
1976-77	46,614	- 1.1	1986-87	27,285	- 7.8
1977-78	45,350	- 2.7	1987-88	26,912	- 1.4
1978-79	44,235	- 2.5	1988-89	30,368	+ 12.8

¹ Time period is September 1 through August 31 for academic years 1965-66 through 1981-82, and August 1 through July 31 for subsequent years.

² Excludes American Samoa, Guam, Puerto Rico, and the Virgin Islands.

Table 18
GRADUATIONS FROM LPN/LVN PROGRAMS, BY NLN REGION AND STATE: 1979-80 TO 1988-89

NLN REGION AND STATE	NUMBER OF GRADUATIONS									
	1979-80	1980-81	1981-82	1982-83	1983-84	1984-85	1985-86	1986-87	1987-88	1988-89
United States¹	41,892	41,002	43,299	45,174	44,054	36,955	29,599	27,285	26,912	30,368
North Atlantic	8,616	7,952	8,291	8,782	8,858	7,605	6,168	5,207	4,856	5,595
Midwest	11,522	11,557	11,983	12,565	11,715	9,077	7,085	6,619	6,839	7,536
South	15,629	15,486	16,497	17,083	16,978	14,322	11,703	10,879	10,693	12,236
West	6,125	6,007	6,528	6,744	6,503	5,951	4,643	4,580	4,524	5,001
Alabama	1,138	1,105	1,216	1,226	1,392	1,014	812	783	749	830
Alaska	16	15	8	12	15	0	0	0	0	0
Arizona	367	329	389	384	400	464	243	316	275	301
Arkansas	825	954	908	1,181	947	699	504	625	540	606
California	3,095	2,944	3,189	3,489	2,999	2,896	2,343	2,207	2,039	2,265
Colorado	459	480	497	511	526	304	269	260	323	395
Connecticut	343	279	228	229	296	311	256	257	246	217
Delaware	78	50	91	82	89	63	64	44	55	59
District of Columbia	70	65	81	71	59	45	44	61	42	54
Florida	1,819	1,828	1,927	2,148	2,250	1,930	1,512	1,374	1,428	1,522
Georgia	1,416	1,270	1,267	1,461	1,301	1,101	923	883	794	933
Hawaii	100	124	116	128	114	91	97	63	71	77
Idaho	179	136	150	138	149	128	74	90	90	107
Illinois	2,086	2,120	2,125	2,259	1,913	1,566	1,296	1,030	1,100	1,176
Indiana	727	768	855	857	893	824	674	669	699	730
Iowa	877	722	754	809	710	483	397	489	581	632
Kansas	548	573	570	716	681	512	419	469	531	510
Kentucky	547	595	803	706	722	684	545	596	554	582
Louisiana	1,008	943	976	1,109	1,035	911	798	763	699	841
Maine	201	213	185	247	266	156	146	152	131	182
Maryland	357	367	379	387	429	254	204	175	178	211
Massachusetts	1,029	980	1,184	913	837	611	590	541	550	629
Michigan	1,577	1,524	1,613	1,488	1,348	1,112	1,013	955	767	787
Minnesota	1,205	1,204	1,135	1,118	1,058	908	715	718	752	914
Mississippi	618	694	708	657	588	531	360	418	324	343
Missouri	931	903	1,068	1,073	1,096	972	819	644	666	726
Montana	168	133	129	132	155	145	106	100	121	128
Nebraska	365	338	381	468	446	391	255	227	290	353
Nevada	83	72	86	67	57	62	45	43	56	49
New Hampshire	114	146	143	200	209	122	80	56	74	32
New Jersey	1,257	1,138	1,190	1,171	1,132	1,162	1,052	814	740	830
New Mexico	230	278	296	294	274	266	197	152	135	130
New York	2,735	2,565	2,498	2,924	2,933	2,736	2,059	1,844	1,630	1,972
North Carolina	878	870	873	929	788	539	463	329	314	367
North Dakota	238	243	249	282	256	95	42	44	78	38
Ohio	1,861	2,036	2,176	2,333	2,380	1,821	1,300	1,215	1,227	1,443
Oklahoma	736	774	704	721	720	686	594	489	539	693
Oregon	356	365	375	358	319	343	315	265	309	289
Pennsylvania	2,564	2,338	2,479	2,705	2,855	2,214	1,709	1,336	1,282	1,506
Rhode Island	86	72	99	111	87	78	79	45	48	48
South Carolina	448	508	542	515	576	416	362	321	317	359
South Dakota	208	229	215	245	231	24	13	17	19	21
Tennessee	1,046	974	1,355	936	821	960	597	655	702	781
Texas	3,441	3,136	3,221	3,410	3,885	3,203	2,750	2,397	2,437	2,998
Utah	261	246	267	339	311	248	237	233	266	328
Vermont	139	123	131	129	128	107	89	57	58	66
Virginia	923	993	1,114	1,149	1,083	1,001	840	751	778	778
Washington	753	788	874	806	953	919	658	784	765	830
West Virginia	429	475	514	546	497	393	439	320	340	392
Wisconsin	899	897	880	917	752	369	142	142	129	206
Wyoming	58	80	86	86	93	85	59	67	74	102
American Samoa	10	10	8	0	12	12	8	8	8	8
Guam	16	0	0	0	0	0	0	0	0	0
Puerto Rico	618	856	897	932	1,020	1,415	1,086	931	501	511
Virgin Islands	0	0	0	0	0	0	0	0	15	15

¹ National and regional totals exclude American Samoa, Guam, Puerto Rico, and the Virgin Islands.

Table 19
GRADUATIONS FROM LPN/LVN PROGRAMS,
BY NLN REGION AND PRIMARY SOURCE OF FINANCIAL SUPPORT: 1979-80 TO 1988-89

NLN REGION BY TYPE OF FINANCIAL SUPPORT ¹	NUMBER OF GRADUATIONS									
	1979-80	1980-81	1981-82	1982-83	1983-84	1984-85	1985-86	1986-87	1987-88	1988-89
All Regions	41,892	41,002	43,299	45,174	44,054	36,955	29,599	27,285	26,912	30,368
Public	38,768	38,120	40,259	41,343	39,721	33,732	27,594	25,133	24,832	28,203
Private	3,124	2,882	3,040	3,831	4,333	3,223	2,005	2,152	2,080	2,165
North Atlantic	8,616	7,952	8,291	8,782	8,858	7,605	6,168	5,207	4,856	5,595
Public	7,698	7,312	7,629	7,845	7,303	6,221	5,319	4,397	4,050	4,805
Private	918	640	662	937	1,555	1,384	849	810	806	790
Midwest	11,522	11,557	11,983	12,565	11,715	9,077	7,085	6,619	6,839	7,536
Public	10,693	10,720	11,387	11,697	10,758	8,591	6,848	6,295	6,653	7,228
Private	829	837	596	868	957	486	237	324	186	308
South	15,629	15,486	16,497	17,083	16,978	14,322	11,703	10,879	10,693	12,236
Public	14,758	14,560	15,325	15,708	15,755	13,622	11,316	10,444	10,197	11,684
Private	871	926	1,172	1,375	1,223	700	387	435	496	552
West	6,125	6,007	6,528	6,744	6,503	5,951	4,643	4,580	4,524	5,001
Public	5,619	5,528	5,918	6,093	5,905	5,298	4,111	3,997	3,932	4,486
Private	506	479	610	651	598	653	532	583	592	515

¹ Excludes American Samoa, Guam, Puerto Rico, and the Virgin Islands.

Table 20
GRADUATIONS FROM LPN/LVN PROGRAMS,
BY NLN REGION AND TYPE OF ADMINISTRATIVE CONTROL: 1979-80 TO 1988-89

NLN REGION BY TYPE OF ADMINISTRATIVE CONTROL ¹	NUMBER OF GRADUATIONS									
	1979-80	1980-81	1981-82	1982-83	1983-84	1984-85	1985-86	1986-87	1987-88	1988-89
All Regions	41,892	41,002	43,299	45,174	44,054	36,955	29,599	27,285	26,912	30,368
Technical or vocational school	23,901	23,297	24,786	25,302	24,089	20,487	16,565	14,946	14,608	16,010
Junior or community college	12,276	12,421	12,963	14,034	13,116	11,266	8,784	8,956	9,519	10,797
Secondary school	1,792	1,513	1,838	1,827	2,629	2,640	2,334	1,647	1,476	1,759
Hospital	2,371	2,403	2,577	2,780	2,409	1,271	833	714	782	956
Government agency	538	591	576	646	1,179	827	707	747	314	577
Senior college or university	772	640	413	484	393	284	213	93	131	167
Independent agency	242	137	146	101	239	180	163	182	82	102
North Atlantic	8,616	7,952	8,291	8,782	8,858	7,605	6,168	5,207	4,856	5,595
Technical or vocational school	5,887	5,530	5,812	6,092	5,857	5,182	4,112	3,553	3,448	3,754
Junior or community college	786	728	845	961	1,066	811	615	525	480	734
Secondary school	763	639	786	746	1,023	1,063	951	724	542	614
Hospital	804	783	783	800	736	474	383	304	341	389
Government agency	33	53	38	124	138	55	49	101	45	58
Senior college or university	295	179	0	29	0	0	0	0	0	46
Independent agency	48	40	27	30	38	20	58	0	0	0
Midwest	11,522	11,557	11,983	12,565	11,715	9,077	7,085	6,619	6,839	7,536
Technical or vocational college	6,778	6,703	6,888	6,980	6,569	4,884	3,972	3,529	3,629	3,941
Junior or community college	3,739	3,914	4,124	4,598	4,052	3,269	2,549	2,601	2,789	3,016
Secondary school	284	245	308	254	413	550	455	300	267	428
Hospital	504	561	511	578	423	130	61	57	59	76
Government agency	4	0	0	0	110	144	0	115	48	48
Senior college or university	83	93	112	111	97	56	32	0	33	7
Independent agency	130	41	40	44	51	44	16	17	14	20
South	15,629	15,486	16,497	17,083	16,978	14,322	11,703	10,879	10,693	12,236
Technical or vocational school	9,416	9,230	10,055	10,182	9,782	8,367	6,858	6,470	6,231	6,921
Junior or community college	4,055	4,135	4,089	4,319	4,251	3,912	3,179	3,078	3,458	3,955
Secondary school	517	501	540	624	791	664	524	395	369	358
Hospital	1,050	1,055	1,273	1,402	1,195	667	389	353	382	491
Government agency	359	402	370	353	684	628	658	531	201	447
Senior college or university	216	135	128	176	160	69	48	27	24	37
Independent agency	16	28	42	27	115	15	47	25	28	27
West	6,125	6,007	6,528	6,744	6,503	5,951	4,643	4,580	4,524	5,001
Technical or vocational school	1,820	1,834	2,031	2,048	1,881	2,054	1,623	1,394	1,300	1,394
Junior or community college	3,696	3,644	3,905	4,156	3,747	3,274	2,441	2,752	2,792	3,092
Secondary school	228	128	204	203	402	363	404	228	298	359
Hospital	13	4	10	0	55	0	0	0	0	0
Government agency	142	136	168	169	247	0	0	0	20	24
Senior college or university	178	233	173	168	136	159	133	66	74	77
Independent agency	48	28	37	0	35	101	42	140	40	55

¹ Excludes American Samoa, Guam, Puerto Rico, and the Virgin Islands.

PART FIVE
NURSE EDUCATORS: RN



Nurse Educators 1990: Findings from the Faculty Census (formerly **Nurse Faculty: Socioeconomic Trends**) is the biennial study by the Division of Research of nursing faculty for all RN and higher educational programs. It represents our ongoing efforts to redesign our databooks and to present the NLN's comprehensive and unique nursing educational data in a more readable and enlightening format.

As in all our research books, this volume includes numerical tables that supply the detailed statistical data many seek and for which the League is well known. The new design also includes bold and illustrative graphics to highlight the key findings and provide the reader with "at-a-glance" understanding of the data. Additionally, for those interested in interpretation and analysis, extensive policy oriented commentary is provided throughout.

We believe that in combination these three ingredients—statistics, graphics and interpretation—result in an exceedingly effective arrangement for the findings of our biennial census of nurse faculty. For further information, we also invite you to review two other references from the NLN Division of Research: *Nursing DataSource 1991: A Research Report*, a three volume subscription series covering the findings of the annual surveys of nursing educational programs (including basic, graduate and LPN/LVN nursing educational data) and *Licensed to Care: An Executive Report on the New Nurse* for an extensive analysis of the findings of the newly licensed nurse study.

The Division of Research is continually involved in revising its data collection projects and data books to better serve the nursing community. We trust the results will benefit you in your work.

Special thanks are due to Jill Hodge and Kathy Kaufman, Research Coordinators at NLN, for their invaluable contributions to this book.

Peri Rosenfeld

NURSE EDUCATORS 1990: FINDINGS FROM THE FACULTY CENSUS

Introduction

The National League for Nursing has been collecting data on the nation's nursing faculty since 1962 to monitor trends in the number and variety of nurse educators, to identify their demographic and educational characteristics, to assess their workload and to examine their salaries. The survey, conducted biennially on even years, explores the status of nurse educators as a unique segment of the nursing profession. As members of the academy, nurse educators share the educational and institutional concerns related to institutions of higher learning. As nurses, they maintain strong ties to the profession as practitioners and teachers of future generations of nurses.

Methodology and Response Rate

The Faculty Census was mailed to each of the 1,607 nursing educational programs in early 1990: 1,457 basic programs and an additional 150 higher degree programs that accept RNs only (see Table 1). After two mailings, the overall response rate was 88.7 percent with 1,426 programs responding to the survey. Item response varied question to question. Baccalaureate and higher degree programs garnered an 85.7 percent response rate, associate degree programs achieved almost a 90 percent response, and diploma programs, almost 95 percent (see Table 3).

Section 5—1
The Nurse Educator Population:
The Supply and Demand for Nurse Faculty



The Nurse Educator Population: The Supply and Demand for Nurse Faculty

The nurse faculty population peaked in 1984 when an estimated 25,580 full-time and FTE faculty were employed in the then 1,697 nursing programs nationwide. In 1990, it is estimated that 22,341 full-time and FTE part-time faculty are working in the current 1,607 nursing programs. The estimated number of full-time faculty in 1990 stood at 18,853 which is a 0.9 percent drop over the 1988 figure of 19,019. On the other hand, the projected number of part-time faculty has increased almost 15 percent to 6,975 in 1990 (see Figure 1).

Several key trends impact on these statistics. First, the number of nursing educational programs has fluctuated over the past decade with growth in associate degree and baccalaureate and higher degree programs and a concomitant decline in the number of diploma programs. In addition, the number of students enrolled in nursing programs plummeted from 250,553 in 1983 to 182,947 in 1987 and has been slowly improving since that time (see Figure 2). These trends, no doubt, influence the demand and employment conditions for nurse faculty.

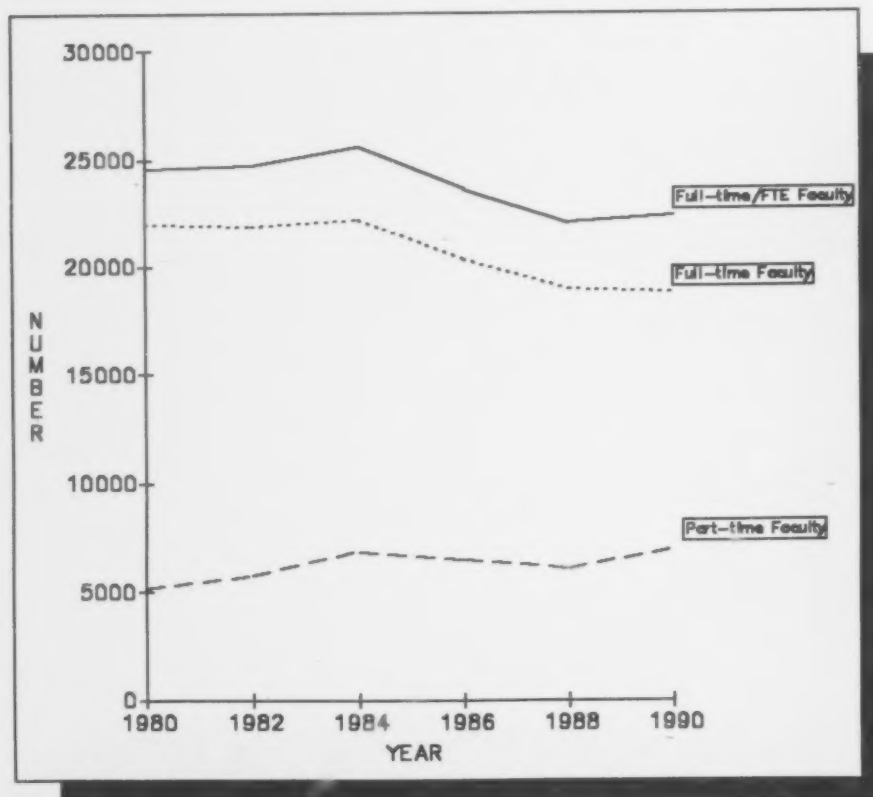


Figure 1
The Nurse Faculty Population: Trends in Full-time,
Part-time, and FTE Faculty, 1980-1990

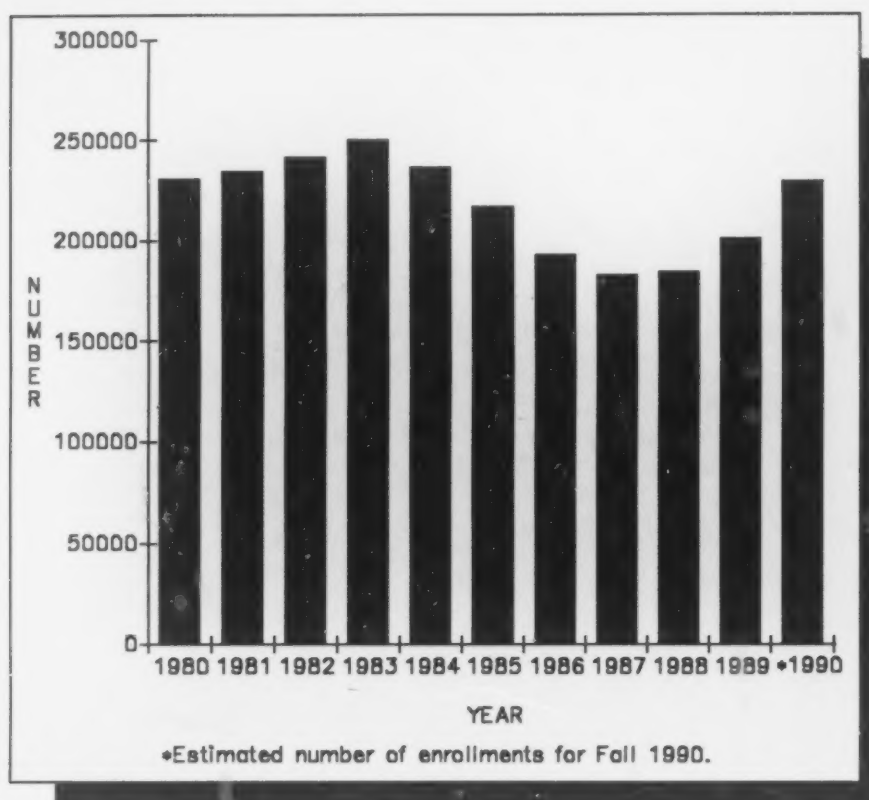


Figure 2
Trends in Nursing School Enrollments, 1980-1990

Not only has the actual number of full-time faculty declined but the average number of faculty members per program has declined, as well—from 14.7 full-time faculty per program in 1980 to under 11.7 in 1990 (see Table 5). Over the past decade, baccalaureate and higher degree programs experienced the greatest volatility relative to the average faculty size per program: on average 22 full-time faculty were teaching in 1980 and under 16 full-time faculty were employed in the nation's baccalaureate and higher degree programs in 1990. Associate degree and diploma programs report less dramatic variations: the average number of full-time faculty at associate degree programs stood at 9.3 in 1980 and fell to 8.6 by 1990, the mean number of full-time faculty at diploma programs fell from 15.7 in 1980 to 12.4 in 1990.

As the average number of full-time faculty fell, the number of part-time faculty grew—from 3.5 per program in 1980 to 4.3 per program in 1990. Associate degree programs report the most fluctuation in their employment of part-timers. In 1990, ADN programs employed on average 4.3 part-time faculty per program while in 1980 that figure was 2.9 (see Table 5).

Despite changes in the number and type of instructors in nursing schools, student-faculty ratios have remained essentially unchanged over the years. In 1982, for example, there existed one faculty member (full time plus FTE part-time) for 11 basic and returning RN baccalaureate students. In 1990, the ratio was 10:1. In associate degree programs, the student-faculty ratio was 13:1 in 1982 and 12:1 in 1990. Diploma programs reported the greatest fluctuations with an 8:1 student-faculty ratio in 1982 and 9:1 in 1990 (see Figure 3).

The nation's nursing schools reported that 700 budgeted full-time positions remained unfilled in 1990, resulting in a vacancy rate of less than 5 percent nationwide. National vacancy rates for full-time nurse educators has remained fairly stable (see Figure 4). Regionally, the South claims the highest rate of unfilled positions (5.2%) and the North Atlantic, the lowest (3.2%, see Table 7).

In 1990, the proportion of unfilled positions was highest among diploma programs where an estimated 97 unfilled budgeted positions remained, i.e., a 5 percent vacancy rate existed. Baccalaureate programs reported that 4.7 percent of their full-time positions were vacant and associate degree programs maintained a 3.3 percent vacancy rate (see Table 4).

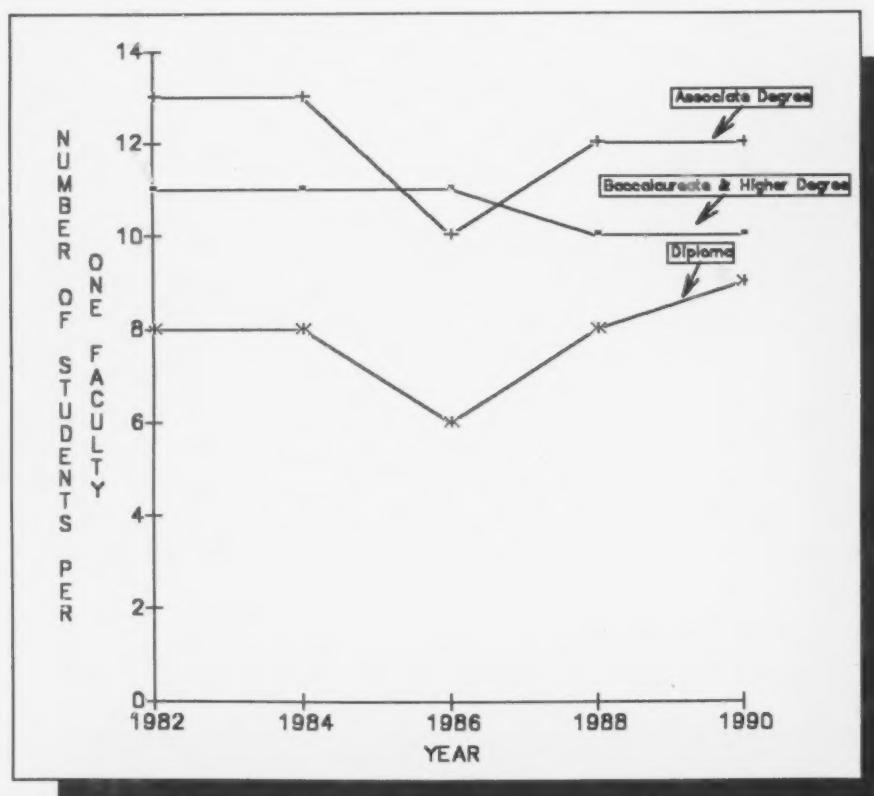


Figure 3
Student-Faculty Ratios by Program Type, 1982-1990

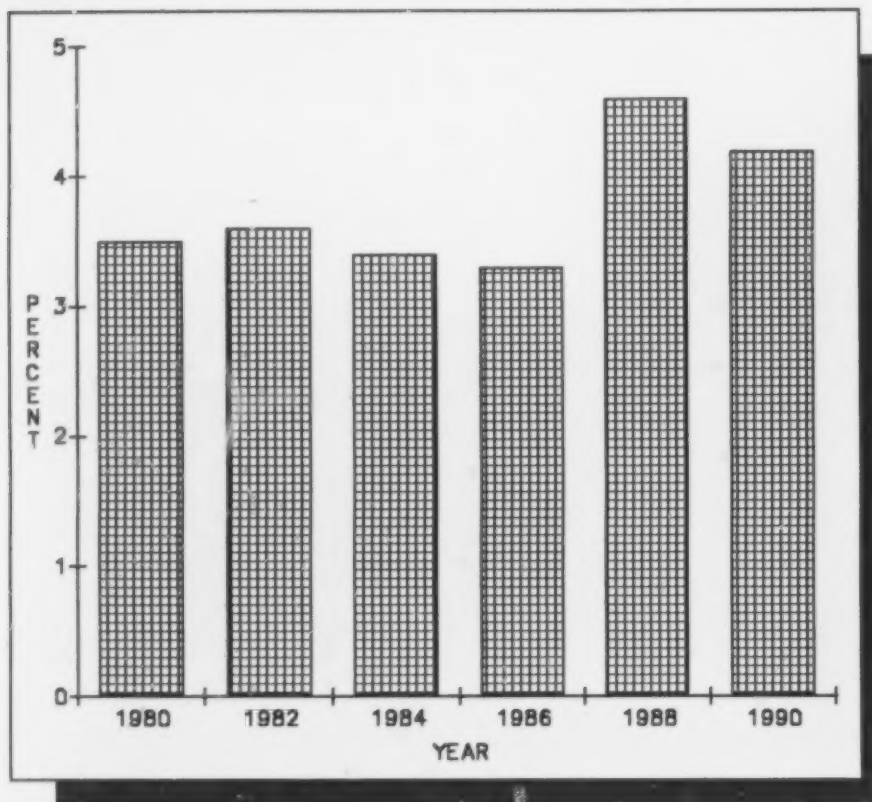


Figure 4
The Trend in Vacancy Rates, 1980-1990

Implications

The data indicate that the number of full-time faculty has been slipping while part-time faculty appointments grow. This trend may be the result of budgetary considerations or the inability to recruit individuals qualified for full-time positions or both. Nonetheless, the student-faculty ratio has remained essentially unchanged suggesting that parity exists between students and teachers.

An analysis of the requisite number of faculty necessary to properly prepare students for their careers is a quixotic endeavor. Administrators, with their eyes on the bottom line, no doubt differ from the faculty members involved in the day to day activities of their students' education. In view of the increasing interest among students in nursing, it is time for the nursing community to move to another pressing area of concern and explore the issues of demand for nurse educators.

Table 1
NUMBER AND PERCENT OF NURSING EDUCATION PROGRAMS BY REGION, January 1990

NLN REGION	All Programs		Diploma Programs		Associate Degree Programs		Baccalaureate and Higher Degree Programs			
	Number	Percent	Number	Percent	Number	Percent	Basic		Non-Basic	
							Number	Percent	Number	Percent
All Regions	1,607	100	157	9.8	812	50.5	488	30.4	150	9.3
North Atlantic	386	100	77	19.9	148	38.3	110	28.5	51	13.2
Midwest	465	100	48	10.3	218	46.9	157	33.8	42	9.0
South	520	100	31	6.0	287	55.2	165	31.7	37	7.1
West	236	100	1	0.4	159	67.4	56	23.7	20	8.5
Territories	27	100	0	0.0	11	40.7	15	55.6	1	3.7

Table 2
NUMBER OF NURSING EDUCATION PROGRAMS BY TYPE OF PROGRAM AND STATE, 1990¹

JURISDICTION	TOTAL NUMBER OF PROGRAMS	Diploma Programs	Associate Degree Programs	Baccalaureate and Higher Degree Programs	
				Basic Programs	Non-Basic Programs
Alabama	35	2	20	13	0
Alaska	3	0	2	1	0
Arizona	16	0	11	4	1
Arkansas	22	2	12	7	1
California	100	1	69	21	9
Colorado	13	0	6	6	1
Connecticut	22	5	6	7	4
Delaware	9	1	4	2	2
District of Columbia	5	0	1	4	0
Florida	44	1	26	13	4
Georgia	35	1	19	13	2
Hawaii	7	0	5	2	0
Idaho	8	0	5	2	1
Illinois	75	8	35	27	5
Indiana	47	3	20	21	3
Iowa	40	5	21	11	3
Kansas	34	1	21	10	2
Kentucky	32	0	19	10	3
Louisiana	22	3	6	12	1
Maine	15	0	8	6	1
Maryland	27	3	14	6	4
Massachusetts	51	8	19	14	10
Michigan	50	3	32	14	1
Minnesota	25	0	12	8	5
Mississippi	21	0	14	7	0
Missouri	52	8	22	14	8
Montana	5	0	3	2	0
Nebraska	15	1	5	7	2
Nevada	7	0	4	2	1
New Hampshire	9	0	6	3	0
New Jersey	46	17	14	7	8
New Mexico	15	0	13	1	1
New York	114	9	60	32	13
North Carolina	63	4	43	12	4
North Dakota	8	0	0	7	1
Ohio	77	17	30	21	9
Oklahoma	28	0	16	11	1
Oregon	19	0	13	5	1
Pennsylvania	101	35	24	31	11
Rhode Island	7	2	2	3	0
South Carolina	22	0	13	7	2
South Dakota	10	1	5	4	0
Tennessee	37	4	16	14	3
Texas	72	2	44	22	4
Utah	8	0	4	3	1
Vermont	7	0	4	1	2
Virginia	40	8	16	10	6
Washington	28	0	18	6	4
West Virginia	20	1	9	8	2
Wisconsin	32	1	15	13	3
Wyoming	7	0	6	1	0
American Samoa	1	0	1	0	0
Guam	2	0	0	1	1
Puerto Rico	22	0	9	13	0
Virgin Islands	2	0	1	1	0
TOTAL	1,607	157	812	488	150

¹ Territories omitted from total

Table 3
CHANGE IN NUMBER OF FULL-TIME AND PART-TIME FACULTY AND UNFILLED POSITIONS
BY TYPE OF PROGRAM, 1980-1990¹

NUMBER OF FACULTY AND UNFILLED BUDGETED POSITIONS BY TYPE OF PROGRAM ²	1980		1982		1984		1986		1988		1990	
	Number	Percent Change	Number	Percent Change	Number	Percent Change	Number	Percent Change	Number	Percent Change	Number	Percent Change
ALL PROGRAMS REPORTING³												
Number of Programs Reporting	1,385	+3.4	1,391	+0.4	1,556	+11.6	1,467	-5.7	1,451	-1.1	1,426	-1.7
Percent of total programs	92.9	+1.4	89.9	-3.0	92.3	+2.4	88.7	-3.6	88.4	-0.3	88.7	+0.3
Number of full-time faculty	20,355	+0.7	19,742	-3.0	20,449	+3.6	18,060	-11.7	16,813	-6.9	16,723	-0.5
Number of part-time faculty	4,781	+7.3	5,167	+8.1	6,322	+22.4	5,746	-9.1	5,372	-6.5	6,187	+15.2
Unfilled budgeted positions	710	-11.2	720	+1.4	694	-3.6	611	-12.0	768	+25.7	700	-8.8
BACCALAUREATE AND HIGHER DEGREE PROGRAMS REPORTING³												
Number of Programs Reporting	433	+14.5	468	+8.1	564	+20.5	557	-1.2	578	+3.8	547	-5.4
Percent of total programs	92.1	+6.2	90.3	-1.8	90.3	0.0	91.2	+1.2	90.7	-0.5	88.7	-5.0
Number of full-time faculty	9,531	+8.4	9,502	-0.3	9,800	+3.1	8,925	-8.9	9,111	+0.2	8,615	-5.4
Number of part-time faculty	2,108	+9.8	2,254	+6.9	2,697	+19.7	2,845	+5.5	2,557	-10.1	2,605	+1.9
Unfilled budgeted positions	403	-23.6	435	+7.9	407	-6.4	402	-1.2	471	+17.2	402	-14.6
ASSOCIATE DEGREE PROGRAMS REPORTING												
Number of Programs Reporting	647	+5.2	642	+0.8	745	+16.0	692	-7.1	689	-0.4	730	+6.0
Percent of total programs	94.0	+0.3	88.4	-5.6	97.5	+9.1	87.9	-9.6	86.6	-1.3	89.9	+3.3
Number of full-time faculty	6,036	+1.6	5,863	-2.9	6,606	+12.7	6,288	-4.8	5,686	-9.6	6,254	+10.0
Number of part-time faculty	1,852	+14.2	2,146	+15.9	2,554	+19.0	2,395	-6.2	2,416	+0.9	3,156	+30.6
Unfilled budgeted positions	194	0.0	178	-8.2	188	+5.6	138	-26.6	201	+45.7	206	+2.5
DIPLOMA PROGRAMS REPORTING												
Number of Programs Reporting	305	-12.1	281	-7.9	257	-8.5	218	-15.2	184	-15.6	149	-19.0
Percent of total programs	91.6	-3.0	92.7	+1.1	88.9	-3.8	85.2	-3.7	88.0	+2.8	94.9	+6.9
Number of full-time faculty	4,788	-12.7	4,377	-8.6	4,043	-7.6	2,847	-29.6	2,016	-29.2	1,854	-8.0
Number of part-time faculty	821	-10.4	767	-6.6	771	+0.5	506	-34.4	399	-21.1	426	+6.9
Unfilled budgeted positions	113	-18.7	107	-5.3	99	-7.5	71	-28.3	96	+35.2	92	-4.2

¹ As of January of each year indicated.

² Directors of programs not included in table.

³ Includes master's programs and RN baccalaureate programs.

Table 4
ESTIMATED NUMBER OF FULL-TIME AND PART-TIME FACULTY AND UNFILLED POSITIONS AND PERCENT CHANGE
BY TYPE OF PROGRAM, 1980-1990¹

ESTIMATED TOTAL NUMBER OF NURSE FACULTY AND UNFILLED BUDGETED POSITIONS BY TYPE OF PROGRAM ²	1980		1982		1984		1986		1988		1990	
	Number	Percent Change	Number	Percent Change	Number	Percent Change	Number	Percent Change	Number	Percent Change	Number	Percent Change
ALL PROGRAMS³												
Total Number of Programs	1,491	+1.6	1,547	+3.8	1,697	+9.7	1,654	-2.5	1,642	-0.7	1,607	-2.1
Total estimated nurse faculty (full-time and FTEs) ⁴	24,567	-1.2	24,741	+0.7	25,580	+3.4	23,600	-7.7	22,058	-6.5	22,341	+1.3
Total estimated full-time faculty	21,991	-1.8	21,867	-0.6	22,155	+1.3	20,361	-8.1	19,019	-6.6	18,853	-0.9
Total estimated part-time faculty	5,153	+4.4	5,749	+11.6	6,849	+19.1	6,478	-5.4	6,077	-6.2	6,975	+14.8
Est. unfilled budgeted positions	766	-15.7	797	+4.0	752	-5.6	689	-8.4	869	+26.1	789	-9.2
BACCALAUREATE AND HIGHER DEGREE PROGRAMS³												
Total Number of Programs	470	+6.6	518	+10.2	625	+20.7	611	-2.2	637	+4.3	638	+0.2
Total estimated nurse faculty (full-time and FTEs) ⁴	11,489	+1.0	11,764	+2.4	12,347	+5.0	11,346	-8.1	11,455	+1.0	11,573	+1.0
Total estimated full-time faculty	10,345	+0.8	10,517	+1.7	10,852	+3.2	9,786	-9.6	10,045	+2.6	10,053	+0.1
Total estimated part-time faculty	2,288	+2.2	2,495	+9.0	2,967	+19.7	3,120	+4.5	2,819	-9.6	3,040	+7.8
Est. unfilled budgeted positions	437	-21.3	481	+10.1	451	-6.2	441	-2.2	519	+17.7	469	-9.6
ASSOCIATE DEGREE PROGRAMS												
Total Number of Programs	688	+4.9	726	+5.5	783	+7.9	787	+0.5	796	+1.1	812	+2.0
Total estimated nurse faculty (full-time and FTEs) ⁴	7,402	+2.8	7,843	+6.0	8,035	+2.4	8,516	+6.0	7,961	-6.5	8,713	+9.4
Total estimated full-time faculty	6,418	+1.3	6,630	+3.3	6,775	+2.2	7,153	+5.6	6,566	-8.2	6,957	+6.0
Total estimated part-time faculty	1,969	+134.6	2,427	+23.3	2,619	+7.9	2,725	+4.2	2,790	+2.4	3,511	+25.8
Est. unfilled budgeted positions	206	-0.5	201	-2.4	193	-4.0	156	-19.2	232	+48.7	229	-1.3
DIPLOMA PROGRAMS												
Total Number of Programs	333	-9.3	303	-9.0	289	-4.6	256	-11.4	209	-18.4	157	-33.1
Total estimated nurse faculty (full-time and FTEs) ⁴	5,676	-9.7	5,134	-9.5	4,798	-6.5	3,639	-24.2	2,518	-30.8	2,179	-13.5
Total estimated full-time faculty	5,228	-9.9	4,720	-9.7	4,380	-7.2	3,342	-23.7	2,291	-31.4	1,954	-14.7
Total estimated part-time faculty	896	-7.5	827	-7.7	835	+0.5	594	-28.9	453	-23.7	449	-0.9
Est. unfilled budgeted positions	123	-16.3	115	-6.5	107	-7.0	83	-22.4	109	+31.3	97	-11.0

¹ As of January of each year indicated. Estimates are based on an extension of the data to a 100 percent response rate to control for differences in response rate in each biennial survey.

² Directors of programs not included in table.

³ Includes master's programs and RN baccalaureate programs.

⁴ Full-time equivalents (FTEs) are calculated by assuming each part-time faculty member is equivalent to one-half of a full-time faculty member.

Table 5
MEAN NUMBER OF FULL-TIME AND PART-TIME NURSE FACULTY AND UNFILLED POSITIONS
BY TYPE OF PROGRAM, 1972-1990

STATUS OF FACULTY	MEAN NUMBER OF FACULTY PER PROGRAM									
	1972	1974	1976	1978	1980	1982	1984	1986	1988	1990
ALL REPORTING PROGRAMS										
Full-time faculty	12.6	14.0	14.7	15.1	14.7	14.2	13.2	12.4	11.6	11.7
Part-time faculty	2.2	2.7	3.0	3.3	3.5	3.7	4.1	3.9	3.7	4.3
Unfilled positions	0.7	0.6	0.6	0.6	0.5	0.5	0.4	0.4	0.5	0.5
BACCALAUREATE AND HIGHER DEGREE PROGRAMS										
Full-time faculty	19.0	22.1	23.0	23.3	22.0	20.3	17.4	16.2	15.8	15.7
Part-time faculty	3.0	4.2	4.7	5.1	4.9	4.8	4.7	5.2	4.5	4.8
Unfilled positions	1.1	1.6	1.2	1.2	0.9	0.9	0.7	0.7	0.8	0.7
ASSOCIATE DEGREE PROGRAMS										
Full-time faculty	7.6	8.8	9.4	9.7	9.3	9.1	8.9	9.1	8.3	8.6
Part-time faculty	1.4	2.1	2.4	2.6	2.9	3.3	3.8	3.5	3.5	4.3
Unfilled positions	0.4	0.4	0.3	0.3	0.3	0.3	0.3	0.2	0.3	0.3
DIPLOMA PROGRAMS										
Full-time faculty	13.5	14.6	15.1	15.8	15.7	15.6	15.7	13.8	11.0	12.4
Part-time faculty	2.4	2.5	2.2	2.6	2.7	2.7	3.0	2.3	2.2	2.9
Unfilled positions	0.6	0.5	0.4	0.4	0.4	0.4	0.4	0.3	0.5	0.6

Table 6
NUMBER OF FULL-TIME AND PART-TIME FACULTY
IN ALL NURSING PROGRAMS BY STATE AND REGION,
1990

JURISDICTION	NUMBER OF PROGRAMS	TOTAL FACULTY	FULL-TIME FACULTY	PART-TIME FACULTY
United States	1,426	22,910	16,723	6,187
North Atlantic	352	5,959	4,185	1,774
Midwest	403	6,495	4,660	1,835
South	461	7,105	5,633	1,472
West	210	3,351	2,245	1,106
Alabama	32	451	387	64
Alaska	2	37	27	10
Arizona	14	211	137	74
Arkansas	21	269	208	61
California	85	1,358	950	408
Colorado	13	285	137	148
Connecticut	20	308	200	108
Delaware	7	110	76	34
District of Columbia	3	81	52	29
Florida	39	696	546	150
Georgia	30	523	371	152
Hawaii	6	95	77	18
Idaho	8	95	70	25
Illinois	68	979	750	229
Indiana	39	662	499	163
Iowa	32	395	259	136
Kansas	32	316	248	68
Kentucky	25	356	282	74
Louisiana	22	421	347	74
Maine	16	156	118	38
Maryland	23	475	314	161
Massachusetts	44	738	514	224
Michigan	45	999	566	433
Minnesota	23	338	240	98
Mississippi	20	314	286	28
Missouri	45	544	406	138
Montana	5	80	63	17
Nebraska	14	270	209	61
Nevada	5	62	42	20
New Hampshire	8	103	77	26
New Jersey	38	571	392	179
New Mexico	14	150	99	51
New York	107	1,906	1,261	645
North Carolina	56	682	503	179
North Dakota	8	125	97	28
Ohio	59	1,187	871	316
Oklahoma	27	301	246	55
Oregon	17	268	170	98
Pennsylvania	98	1,805	1,351	454
Rhode Island	7	151	135	16
South Carolina	17	336	260	76
South Dakota	8	128	88	40
Tennessee	33	473	380	93
Texas	63	1,027	892	135
Utah	8	202	156	46
Vermont	5	46	24	22
Virginia	37	567	442	125
Washington	27	437	266	171
West Virginia	14	199	158	41
Wisconsin	31	551	423	128
Wyoming	6	71	51	20
American Samoa	0	0	0	0
Guam	1	9	8	1
Puerto Rico	17	180	135	45
Virgin Islands	2	11	10	1

Table 6A
NUMBER OF FULL-TIME AND PART-TIME FACULTY
IN BACCALAUREATE & HIGHER DEGREE PROGRAMS
BY STATE AND REGION, 1990

JURISDICTION	NUMBER OF PROGRAMS	TOTAL FACULTY	FULL-TIME FACULTY	PART-TIME FACULTY
United States	547	11,220	8,615	2,605
North Atlantic	144	2,846	2,092	754
Midwest	168	3,332	2,563	769
South	171	3,421	2,835	586
West	64	1,621	1,125	496
Alabama	12	263	229	34
Alaska	1	25	20	5
Arizona	3	76	67	9
Arkansas	7	102	81	21
California	25	590	388	202
Colorado	7	180	104	76
Connecticut	9	163	114	49
Delaware	3	50	40	10
District of Columbia	3	81	52	29
Florida	15	274	239	35
Georgia	12	286	209	77
Hawaii	2	39	30	9
Idaho	3	36	30	6
Illinois	27	485	373	112
Indiana	21	396	327	69
Iowa	12	171	130	41
Kansas	11	158	128	30
Kentucky	10	199	158	41
Louisiana	13	279	227	52
Maine	8	110	82	28
Maryland	7	223	163	60
Massachusetts	18	350	273	77
Michigan	15	471	318	153
Minnesota	12	208	152	56
Mississippi	6	126	114	12
Missouri	17	225	176	49
Montana	2	58	49	9
Nebraska	9	218	172	46
Nevada	2	38	26	12
New Hampshire	3	47	33	14
New Jersey	11	176	126	50
New Mexico	1	50	40	10
New York	44	949	668	281
North Carolina	14	288	250	38
North Dakota	7	113	89	24
Ohio	19	477	393	84
Oklahoma	11	151	129	22
Oregon	4	142	90	52
Pennsylvania	41	836	638	198
Rhode Island	3	81	68	13
South Carolina	7	177	144	33
South Dakota	3	72	49	23
Tennessee	14	214	177	37
Texas	21	475	417	58
Utah	4	132	104	28
Vermont	2	19	13	6
Virginia	14	254	207	47
Washington	9	227	154	73
West Virginia	7	107	88	19
Wisconsin	15	325	244	81
Wyoming	1	28	23	5
American Samoa	0	0	0	0
Guam	1	9	8	1
Puerto Rico	9	84	66	18
Virgin Islands	1	6	5	1

Table 6B
NUMBER OF FULL-TIME AND PART-TIME FACULTY
IN ASSOCIATE DEGREE PROGRAMS
BY STATE AND REGION, 1990

JURISDICTION	NUMBER OF PROGRAMS	TOTAL FACULTY	FULL-TIME FACULTY	PART-TIME FACULTY
United States	730	9,410	6,254	3,156
North Atlantic	135	2,037	1,240	797
Midwest	191	2,490	1,539	951
South	259	3,186	2,385	801
West	145	1,697	1,090	607
Alabama	18	181	151	30
Alaska	1	12	7	5
Arizona	11	135	70	65
Arkansas	12	119	82	37
California	59	735	532	203
Colorado	6	105	33	72
Connecticut	6	73	42	31
Delaware	4	60	36	24
District of Columbia	0	0	0	0
Florida	23	400	289	111
Georgia	17	212	140	72
Hawaii	4	56	47	9
Idaho	5	59	40	19
Illinois	34	396	293	103
Indiana	15	233	149	84
Iowa	15	152	73	79
Kansas	20	149	112	37
Kentucky	15	157	124	33
Louisiana	6	78	60	18
Maine	8	46	36	10
Maryland	13	214	118	96
Massachusetts	19	280	167	113
Michigan	27	487	212	275
Minnesota	11	130	88	42
Mississippi	14	188	172	16
Missouri	20	178	105	73
Montana	3	22	14	8
Nebraska	4	30	17	13
Nevada	3	24	16	8
New Hampshire	5	56	44	12
New Jersey	11	175	107	68
New Mexico	13	100	59	41
New York	55	845	508	337
North Carolina	38	326	208	118
North Dakota	1	12	8	4
Ohio	26	482	291	191
Oklahoma	16	150	117	33
Oregon	13	126	80	46
Pennsylvania	22	419	233	186
Rhode Island	2	56	56	0
South Carolina	10	159	116	43
South Dakota	4	40	32	8
Tennessee	15	195	160	35
Texas	40	514	439	75
Utah	4	70	52	18
Vermont	3	27	11	16
Virginia	15	206	147	59
Washington	18	210	112	98
West Virginia	6	75	54	21
Wisconsin	15	213	167	46
Wyoming	5	43	28	15
American Samoa	0	0	0	0
Guam	0	0	0	0
Puerto Rico	8	96	69	27
Virgin Islands	1	5	5	0

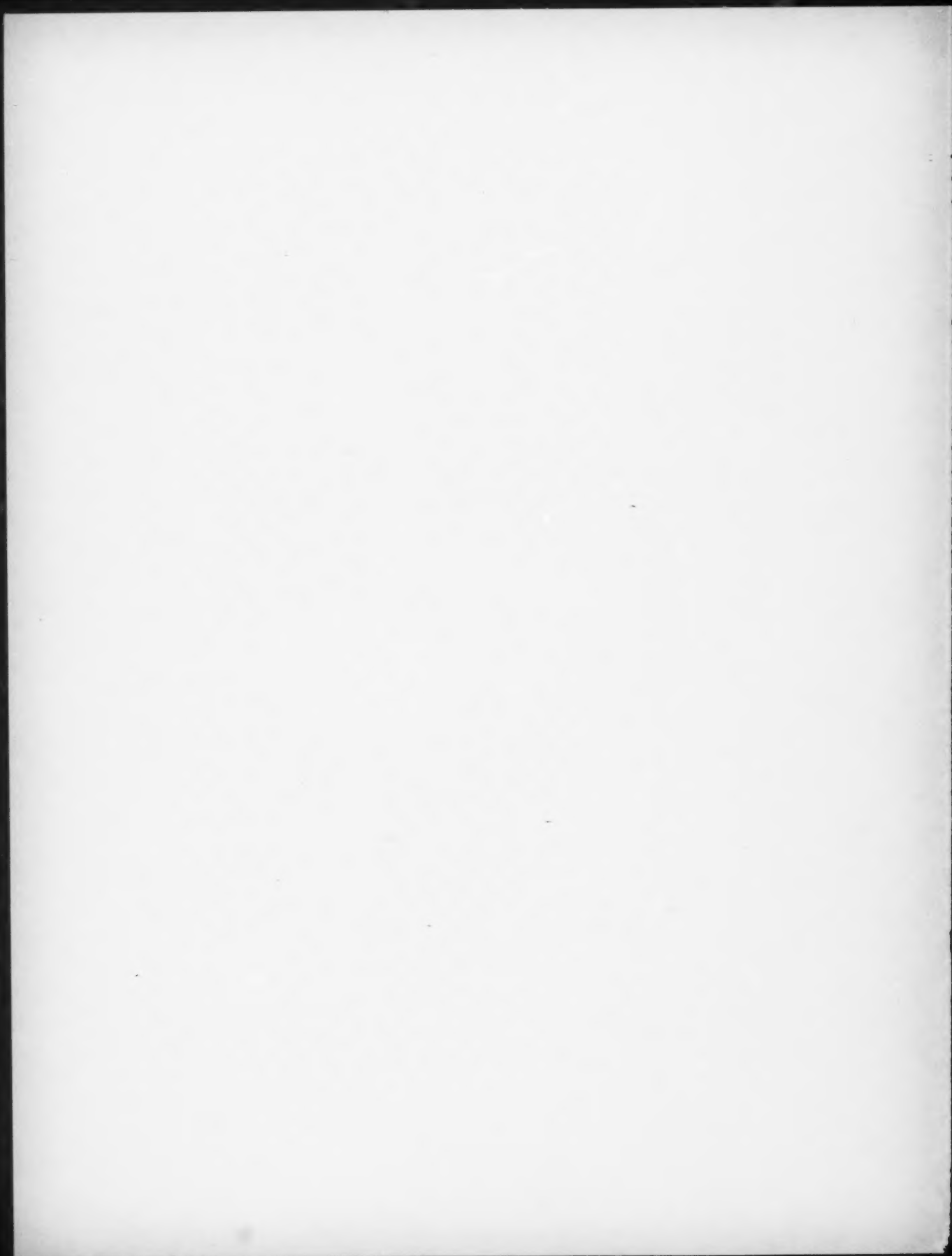
Table 6C
NUMBER OF FULL-TIME AND PART-TIME FACULTY
IN DIPLOMA PROGRAMS BY STATE AND REGION, 1990

JURISDICTION	NUMBER OF PROGRAMS	TOTAL FACULTY	FULL-TIME FACULTY	PART-TIME FACULTY
United States	149	2,280	1,854	426
North Atlantic	73	1,076	853	223
Midwest	44	673	558	115
South	31	498	413	85
West	1	33	30	3
Alabama	2	7	7	0
Alaska	0	0	0	0
Arizona	0	0	0	0
Arkansas	2	48	45	3
California	1	33	30	3
Colorado	0	0	0	0
Connecticut	5	72	44	28
Delaware	0	0	0	0
District of Columbia	0	0	0	0
Florida	1	22	18	4
Georgia	1	25	22	3
Hawaii	0	0	0	0
Idaho	0	0	0	0
Illinois	7	98	84	14
Indiana	3	33	23	10
Iowa	5	72	56	16
Kansas	1	9	8	1
Kentucky	0	0	0	0
Louisiana	3	64	60	4
Maine	0	0	0	0
Maryland	3	38	33	5
Massachusetts	7	108	74	34
Michigan	3	41	36	5
Minnesota	0	0	0	0
Mississippi	0	0	0	0
Missouri	8	141	125	16
Montana	0	0	0	0
Nebraska	1	22	20	2
Nevada	0	0	0	0
New Hampshire	0	0	0	0
New Jersey	16	220	159	61
New Mexico	0	0	0	0
New York	8	112	85	27
North Carolina	4	68	45	23
North Dakota	0	0	0	0
Ohio	14	228	187	41
Oklahoma	0	0	0	0
Oregon	0	0	0	0
Pennsylvania	35	550	480	70
Rhode Island	2	14	11	3
South Carolina	0	0	0	0
South Dakota	1	16	7	9
Tennessee	4	64	43	21
Texas	2	38	36	2
Utah	0	0	0	0
Vermont	0	0	0	0
Virginia	8	107	88	19
Washington	0	0	0	0
West Virginia	1	17	16	1
Wisconsin	1	13	12	1
Wyoming	0	0	0	0
American Samoa	0	0	0	0
Guam	0	0	0	0
Puerto Rico	0	0	0	0
Virgin Islands	0	0	0	0

Table 7
UNFILLED NURSE FACULTY BUDGETED POSITIONS
PER 100 FULL-TIME FACULTY BY REGION, 1980-1990

REGION BY YEAR	TOTAL FULL-TIME FACULTY REPORTED	TOTAL BUDGETED VACANCIES REPORTED	VACANCIES PER 100 FULL-TIME FACULTY
All Regions			
1980	20,355	710	3.5
1982	19,742	720	3.6
1984	20,449	694	3.4
1986	18,374	611	3.3
1988	16,821	768	4.6
1990	16,723	700	4.2
North Atlantic			
1980	5,581	117	2.1
1982	5,333	140	2.6
1984	5,197	106	2.0
1986	5,146	96	1.9
1988	4,083	132	3.2
1990	4,185	132	3.2
Midwest			
1980	6,048	220	3.6
1982	5,979	197	3.3
1984	6,288	201	3.2
1986	5,072	182	3.6
1988	4,638	212	4.6
1990	4,660	190	4.1
South			
1980	6,209	286	4.6
1982	6,060	306	5.0
1984	6,478	293	4.5
1986	5,731	235	4.1
1988	5,606	313	5.6
1990	5,626	291	5.2
West			
1980	2,517	87	3.5
1982	2,370	77	3.2
1984	2,564	94	3.7
1986	2,425	98	4.0
1988	2,494	111	4.5
1990	2,245	87	3.9

Section 5—2
Demographic Characteristics
of Nurse Educators



Section 2

Demographic Characteristics of Nurse Educators

Racial/Ethnic Background of Nurse Educators

Great efforts are being made to increase the racial/ethnic diversity among both the student and faculty populations at the nation's academic institutions. Recent data from the National League for Nursing's annual survey of nursing educational programs demonstrates that the proportion of non-whites among the nursing student population now stands at almost 18 percent of the total (see *Nursing DataSource 1990 vol. III*). Unfortunately, the proportion of nurse educators from minority backgrounds lags behind that of the student body.

The 1990 biennial census of nurse faculty found that fewer than 8 percent of the chief administrators in the nation's nursing schools were from minority backgrounds. Less than 1 percent of the administrators were American Indian, Asian, or Hispanic, and 5.5 percent were black. Diploma programs displayed the least diversity and baccalaureate and higher degree programs reported a larger proportion of black and Asian administrators. The greatest

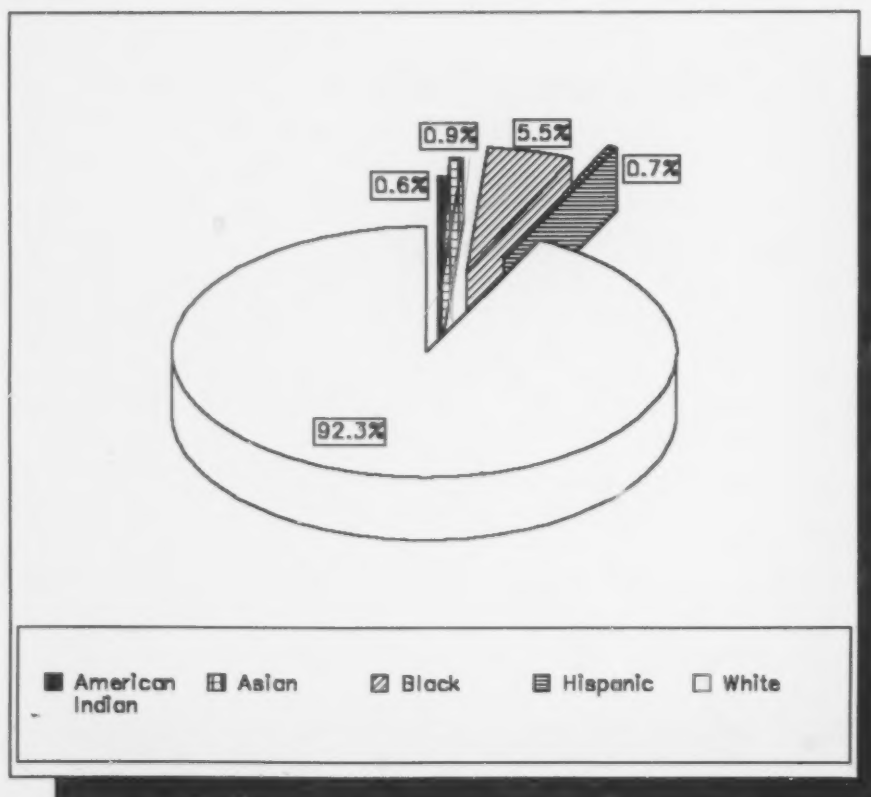


Figure 5
Racial/Ethnic Background of Chief Nurse
Administrators, 1990

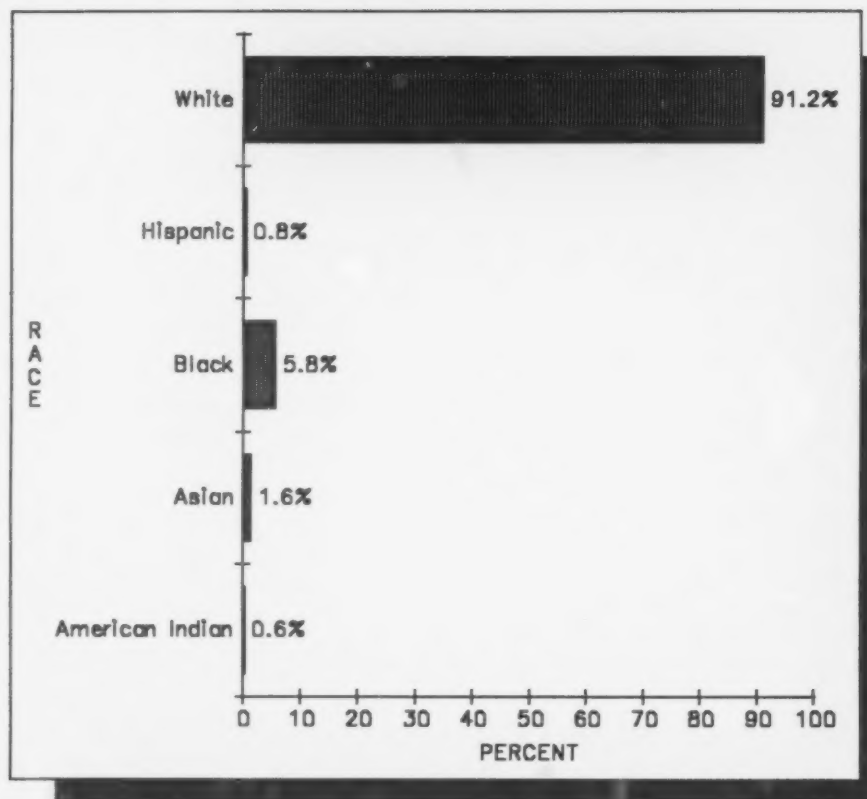


Figure 6
Racial/Ethnic Background of Full-time Faculty, 1990

number and percent of American Indian administrators were found in associate degree programs (see Table 8, Figure 5).

In 1990, less than 6 percent of all full-time faculty were black, less than 2 percent were Asian, and less than 1 percent were American Indian or Hispanic (see Table 9 and Figure 6). Associate degree programs reported the greatest diversity with over 10 percent of its full-time faculty from minority backgrounds. Baccalaureate and higher degree programs and diploma programs report that 92 percent of their full-time instructors are white.

A comparison of the minority representation among nursing faculty and that of faculty in general reveals some interesting differences. According to a recent "Research Brief" of the American Council on Education, minority backgrounds of the faculty members were: 2.2 percent black, 1.7 percent Hispanic, 2.4 percent Asian, and less than 1 percent American Indian¹. In

short, there is a greater proportion of black faculty members among the nation's nursing schools. However, representation of other minority groups is smaller in nursing schools vis-a-vis the nation's colleges and universities (see Figure 7).

As expected, there are regional variations in the percent of minority faculty members. Nursing schools in the South contain the largest group of black full-time faculty while the largest percent of Hispanic and Asian full-time educators are found in the West.

Minority representation among part-time nurse educators is lower than full-time educators. Less than 4 percent of the nation's part-time nursing teachers are black and the percent of Asian and Hispanic part-time faculty hovers at 1 percent. The regional variations for part-time faculty correspond to the trends found among full-time faculty. With respect to program type differences, baccalaureate and higher degree programs contain the smallest proportion of minority part-time faculty (see Table 10).

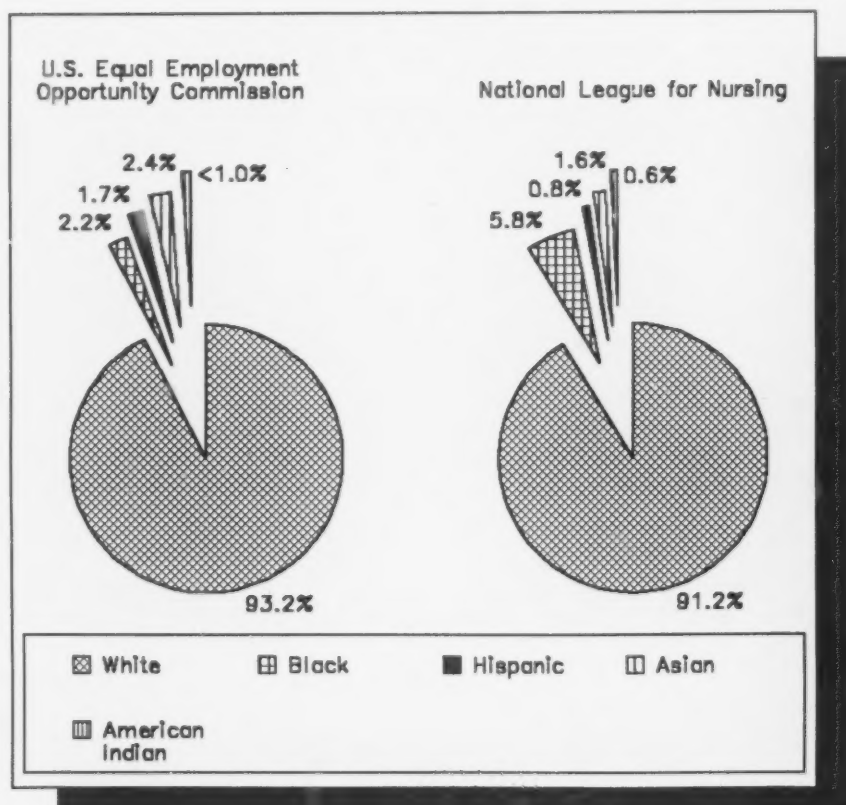


Figure 7
Minority Faculty in Nursing Schools Higher Than
Number in Nation's Colleges

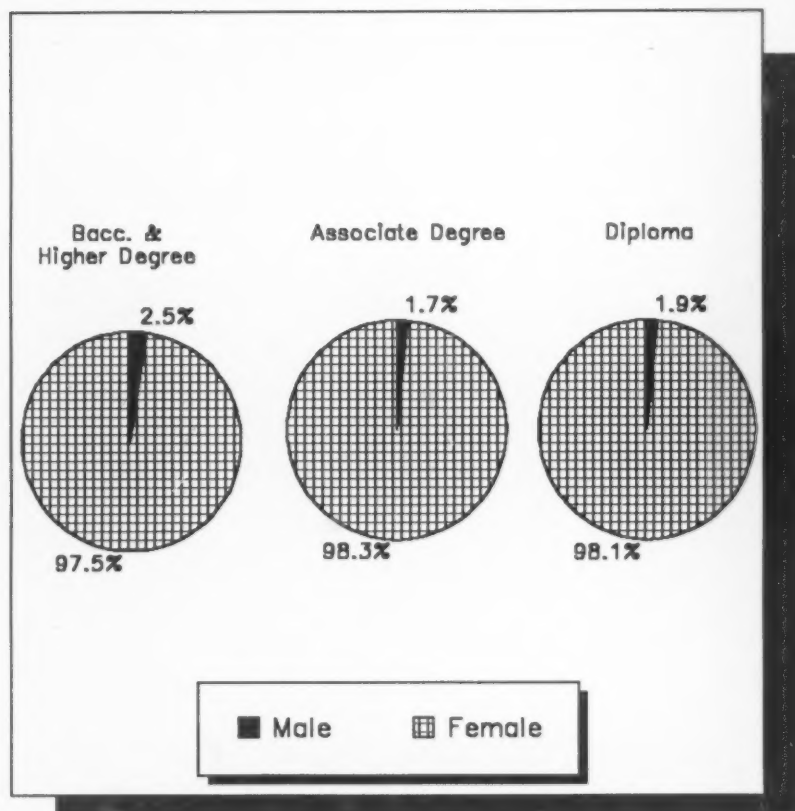


Figure 8
Male Faculty by Program Type, 1990

Male Nurse Educators

Men remain a minority in nursing education and practice. In the *1988 Sample Survey of Registered Nurses*, the Division of Nursing, Bureau of Health Professions, Department of Health and Human Services, found that 3.3 percent of the RN supply were male. Among nursing students, men comprise 6.9 percent of the total number enrolled (*Nursing DataSource 1990 vol. III*).

Among nurse educators, however, the proportion of men is even smaller constituting just 2.1 percent of the full-time faculty population and 3.2 percent of the part-time faculty (see Tables 11 and 12). In disciplines other than nursing, men comprise almost two-thirds of the faculty in the nation's institutions of higher education (American Council on Education, 1990).

With respect to program type differences, baccalaureate and higher degree programs report the largest proportion of male faculty members at both full-time and part-time status (see Figure 8).

Not surprisingly, the overwhelming majority of full-time faculty and part-time faculty are registered nurses, 98.4 and 94 percent respectively (see Table 13).

Implications

Minority representation among nurse faculty is quite low compared to the general nursing supply, the nursing student body and the American population. Recruitment of minority educators has remained a difficult and challenging undertaking for our nations' colleges and universities. While the numbers of minority students have increased recently, there is still much to be done in this area as well. It is projected that by the year 2000 one-third of the nation will be comprised of individuals from minority backgrounds. It is imperative that the nursing supply and, hence, nurse educators, reflect the diversity in the American population to better serve the health care needs of the nation.

Table 8
RACIAL/ETHNIC BACKGROUND OF ADMINISTRATORS
BY TYPE OF PROGRAM AND REGION, 1990

NLN REGION ¹	Total Full-Time Faculty Reported		American Indian or Alaskan Native		Asian or Pacific Islander		Black (Non-Hispanic)		Hispanic		White (Other Than Hispanic)	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
ALL REPORTING PROGRAMS												
All Regions	1,155	100.0	7	0.6	10	0.9	64	5.5	8	0.7	1,066	92.3
North Atlantic	299	100.0	2	0.7	0	0.0	14	4.7	1	0.3	282	94.3
Midwest	326	100.0	1	0.3	4	1.2	18	5.5	1	0.3	302	92.6
South	366	100.0	3	0.8	3	0.8	25	6.8	3	0.8	332	90.7
West	164	100.0	1	0.6	3	1.8	7	4.3	3	1.8	150	91.5
BACCALAUREATE AND HIGHER DEGREE PROGRAMS												
All Regions	434	100.0	0	0.0	6	1.4	27	6.2	3	0.7	398	91.7
North Atlantic	127	100.0	0	0.0	0	0.0	8	6.3	1	0.8	118	92.9
Midwest	131	100.0	0	0.0	4	3.1	6	4.6	0	0.0	121	92.4
South	131	100.0	0	0.0	1	0.8	13	9.9	0	0.0	117	89.3
West	45	100.0	0	0.0	1	2.2	0	0.0	2	4.4	42	93.3
ASSOCIATE DEGREE PROGRAMS												
All Regions	592	100.0	6	1.0	4	0.7	33	5.6	5	0.8	544	91.9
North Atlantic	112	100.0	1	0.9	0	0.0	4	3.6	0	0.0	107	95.5
Midwest	155	100.0	1	0.6	0	0.0	11	7.1	1	0.6	142	91.6
South	207	100.0	3	1.4	2	1.0	11	5.3	3	1.4	188	90.8
West	118	100.0	1	0.8	2	1.7	7	5.9	1	0.8	107	90.7
DIPLOMA PROGRAMS												
All Regions	129	100.0	1	0.8	0	0.0	4	3.1	0	0.0	124	96.1
North Atlantic	60	100.0	1	1.7	0	0.0	2	3.3	0	0.0	57	95.0
Midwest	40	100.0	0	0.0	0	0.0	1	2.5	0	0.0	39	97.5
South	28	100.0	0	0.0	0	0.0	1	3.6	0	0.0	27	96.4
West	1	100.0	0	0.0	0	0.0	0	0.0	0	0.0	1	100.0

¹Excludes American Samoa, Guam, Puerto Rico, and the Virgin Islands.

Table 9
RACIAL/ETHNIC BACKGROUND OF FULL-TIME FACULTY
BY TYPE OF PROGRAM AND REGION, 1990

NLN REGION ¹	Total Full-Time Faculty Reported		American Indian or Alaskan Native		Asian or Pacific Islander		Black (Non-Hispanic)		Hispanic		White (Other Than Hispanic)	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
ALL REPORTING PROGRAMS												
All Regions	16,503	100.0	105	0.6	256	1.6	957	5.8	133	0.8	15,052	91.2
North Atlantic	4,164	100.0	23	0.6	54	1.3	173	4.2	16	0.4	3,898	93.6
Midwest	4,591	100.0	13	0.3	62	1.4	199	4.3	17	0.4	4,300	93.7
South	5,515	100.0	51	0.9	45	0.8	480	8.7	63	1.1	4,876	88.4
West	2,233	100.0	18	0.8	95	4.3	105	4.7	37	1.7	1,978	88.6
BACCALAUREATE AND HIGHER DEGREE PROGRAMS												
All Regions	8,526	100.0	41	0.5	121	1.4	436	5.1	40	0.5	7,888	92.5
North Atlantic	2,080	100.0	17	0.8	24	1.2	92	4.4	7	0.3	1,940	93.3
Midwest	2,531	100.0	5	0.2	34	1.3	93	3.7	7	0.3	2,392	94.5
South	2,790	100.0	11	0.4	30	1.1	218	7.8	19	0.7	2,512	90.0
West	1,125	100.0	8	0.7	33	2.9	33	2.9	7	0.6	1,044	92.8
ASSOCIATE DEGREE PROGRAMS												
All Regions	6,123	100.0	43	0.7	103	1.7	439	7.2	79	1.3	5,459	89.2
North Atlantic	1,231	100.0	5	0.4	12	1.0	62	5.0	7	0.6	1,145	93.0
Midwest	1,502	100.0	8	0.5	24	1.6	90	6.0	7	0.5	1,373	91.4
South	2,312	100.0	20	0.9	14	0.6	221	9.6	37	1.6	2,020	87.4
West	1,078	100.0	10	0.9	53	4.9	66	6.1	28	2.6	921	85.4
DIPLOMA PROGRAMS												
All Regions	1,854	100.0	21	1.1	32	1.7	82	4.4	14	0.8	1,705	92.0
North Atlantic	853	100.0	1	0.1	18	2.1	19	2.2	2	0.2	813	95.3
Midwest	558	100.0	0	0.0	4	0.7	16	2.9	3	0.5	535	95.9
South	413	100.0	20	4.8	1	0.2	41	9.9	7	1.7	344	83.3
West	30	100.0	0	0.0	9	30.0	6	20.0	2	6.7	13	43.3

¹Excludes American Samoa, Guam, Puerto Rico, and the Virgin Islands.

Table 10
RACIAL/ETHNIC BACKGROUND OF PART-TIME FACULTY BY TYPE OF PROGRAM AND REGION, 1990

NLN REGION ¹	Total Part-Time Faculty Reported		American Indian or Alaskan Native		Asian or Pacific Islander		Black (Non-Hispanic)		Hispanic		White (Other Than Hispanic)	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
ALL REPORTING PROGRAMS												
All Regions	6,051	100.0	29	0.5	87	1.4	231	3.8	54	0.9	5,650	93.4
North Atlantic	1,761	100.0	11	0.6	26	1.5	76	4.3	9	0.5	1,639	93.1
Midwest	1,803	100.0	11	0.6	18	1.0	50	2.8	8	0.4	1,716	95.2
South	1,408	100.0	6	0.4	10	0.7	81	5.8	8	0.6	1,303	92.5
West	1,079	100.0	1	0.1	33	3.1	24	2.2	29	2.7	992	91.9
BACCALAUREATE AND HIGHER DEGREE PROGRAMS												
All Regions	2,558	100.0	5	0.2	26	1.0	74	2.9	16	0.6	2,437	95.3
North Atlantic	750	100.0	2	0.3	9	1.2	24	3.2	5	0.7	710	94.7
Midwest	762	100.0	2	0.3	6	0.8	19	2.5	3	0.4	732	96.1
South	565	100.0	0	0.0	4	0.7	24	4.3	2	0.4	535	94.7
West	481	100.0	1	0.2	7	1.5	7	1.5	6	1.2	460	95.6
ASSOCIATE DEGREE PROGRAMS												
All Regions	3,067	100.0	19	0.6	52	1.7	146	4.8	32	1.0	2,818	91.5
North Atlantic	788	100.0	7	0.9	11	1.4	47	6.0	2	0.3	721	91.5
Midwest	926	100.0	8	0.9	11	1.2	30	3.2	3	0.3	874	94.4
South	758	100.0	4	0.5	5	0.7	52	6.7	5	0.7	692	91.3
West	595	100.0	0	0.0	25	4.2	17	2.9	22	3.7	531	89.2
DIPLOMA PROGRAMS												
All Regions	426	100.0	5	1.2	9	2.1	11	2.6	6	1.4	395	92.7
North Atlantic	223	100.0	2	0.9	6	2.7	5	2.2	2	0.9	208	93.3
Midwest	115	100.0	1	0.9	1	0.9	1	0.9	2	0.9	110	95.7
South	85	100.0	2	2.4	1	1.2	5	5.9	1	1.2	76	89.4
West	3	100.0	0	0.0	1	33.3	0	0.0	1	33.3	1	33.3

¹Excludes American Samoa, Guam, Puerto Rico, and the Virgin Islands

Table 11
FULL-TIME MALE FACULTY BY TYPE OF PROGRAM AND REGION, 1990

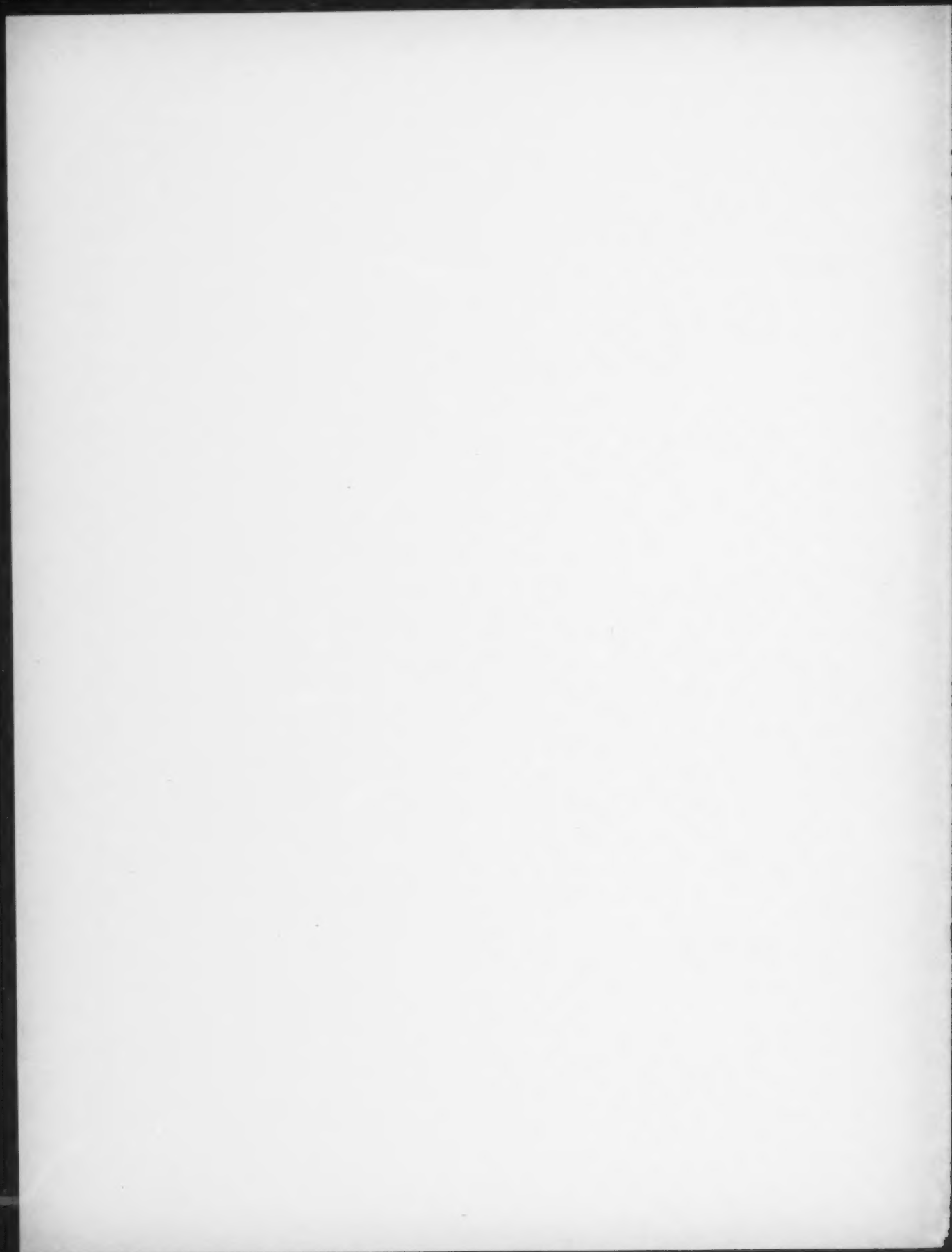
NLN Region	Number of Responding Programs	Total Number of Full-Time Faculty	Number of Full-Time Male Faculty	Full-Time Male Faculty (percent of total)
ALL REPORTING PROGRAMS				
All Regions	1,426	16,716	357	2.1
North Atlantic	352	4,185	72	1.7
Midwest	403	4,660	93	2.0
South	461	5,626	127	2.3
West	210	2,245	65	2.9
BACCALAUREATE AND HIGHER DEGREE PROGRAMS				
All Regions	547	8,614	217	2.5
North Atlantic	144	2,092	41	2.0
Midwest	168	2,563	58	2.3
South	171	2,834	85	3.0
West	64	1,125	35	2.9
ASSOCIATE DEGREE PROGRAMS				
All Regions	730	6,248	104	1.7
North Atlantic	135	1,240	17	1.4
Midwest	191	1,539	25	1.6
South	259	2,379	31	1.3
West	145	1,090	31	2.8
DIPLOMA PROGRAMS				
All Regions	149	1,854	36	1.9
North Atlantic	73	853	14	1.6
Midwest	44	558	10	1.8
South	31	413	11	2.7
West	1	30	1	3.3

Table 12
PART-TIME MALE FACULTY BY TYPE OF PROGRAM AND REGION, 1990

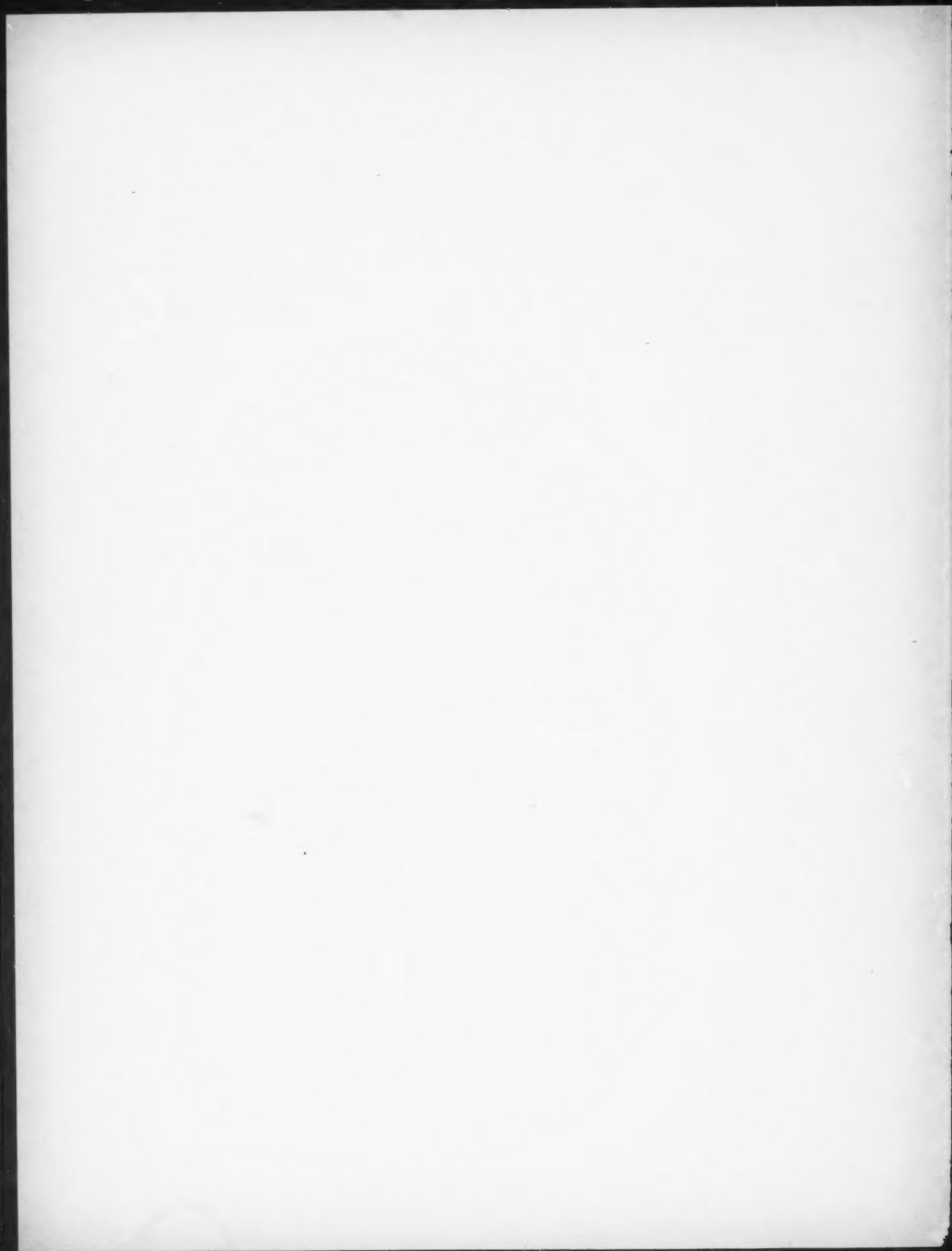
NLN Region	Number of Responding Programs	Total Number of Part-Time Faculty	Number of Part-Time Male Faculty	Part-Time Male Faculty (percent of total)
ALL REPORTING PROGRAMS				
All Regions	1,426	6,188	199	3.2
North Atlantic	352	1,774	60	3.4
Midwest	403	1,835	71	3.9
South	461	1,473	48	3.3
West	210	1,106	20	1.9
BACCALAUREATE AND HIGHER DEGREE PROGRAMS				
All Regions	547	2,606	104	4.0
North Atlantic	144	754	33	4.4
Midwest	168	769	28	3.6
South	171	587	36	6.1
West	64	496	7	1.4
ASSOCIATE DEGREE PROGRAMS				
All Regions	730	3,156	87	2.8
North Atlantic	135	797	23	2.9
Midwest	191	951	39	4.1
South	259	801	12	1.5
West	145	607	13	2.1
DIPLOMA PROGRAMS				
All Regions	149	426	8	1.9
North Atlantic	73	223	4	1.8
Midwest	44	115	4	3.5
South	31	85	0	0.0
West	1	3	0	0.0

Table 13
NUMBER AND PERCENT OF NURSE AND NON-NURSE FACULTY BY TYPE OF PROGRAM AND REGION, 1990

NLN REGION	FULL-TIME FACULTY REPORTED						PART-TIME FACULTY REPORTED					
	TOTAL		NURSE FACULTY		NON-NURSE FACULTY		TOTAL		NURSE FACULTY		NON-NURSE FACULTY	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
ALL REPORTING PROGRAMS												
All regions	16,988	100.0	16,716	98.4	272	1.6	6,579	100.0	6,187	94.0	392	6.0
North Atlantic	4,251	100.0	4,185	98.4	66	1.6	1,893	100.0	1,774	93.7	119	6.3
Midwest	4,762	100.0	4,660	97.9	102	2.1	1,967	100.0	1,835	93.3	132	6.7
South	5,699	100.0	5,626	98.7	73	1.3	1,578	100.0	1,472	93.3	106	6.7
West	2,276	100.0	2,245	98.6	31	1.4	1,141	100.0	1,106	96.9	35	3.1
BACCALAUREATE AND HIGHER DEGREE PROGRAMS												
All regions	8,733	100.0	8,614	98.6	119	1.4	2,843	100.0	2,605	91.6	238	8.4
North Atlantic	2,115	100.0	2,092	98.9	23	1.1	839	100.0	754	89.9	85	10.1
Midwest	2,599	100.0	2,563	98.6	36	1.4	830	100.0	769	92.7	61	7.3
South	2,881	100.0	2,834	98.4	47	1.6	651	100.0	586	90.0	65	10.0
West	1,138	100.0	1,125	98.9	13	1.1	523	100.0	496	94.8	27	5.2
ASSOCIATE DEGREE PROGRAMS												
All regions	6,337	100.0	6,248	98.6	89	1.4	3,266	100.0	3,156	96.6	110	3.4
North Atlantic	1,249	100.0	1,240	99.3	9	0.7	804	100.0	797	99.1	7	0.9
Midwest	1,585	100.0	1,539	97.1	46	2.9	1,012	100.0	951	94.0	61	6.0
South	2,395	100.0	2,379	99.3	16	0.7	836	100.0	801	95.8	35	4.2
West	1,108	100.0	1,090	98.4	18	1.6	614	100.0	607	98.9	7	1.1
DIPLOMA PROGRAMS												
All regions	1,918	100.0	1,854	96.7	64	3.3	470	100.0	426	90.6	44	9.4
North Atlantic	887	100.0	853	96.2	34	3.6	250	100.0	223	89.2	27	10.8
Midwest	578	100.0	558	96.5	20	3.5	125	100.0	115	92.0	10	8.0
South	423	100.0	413	97.6	10	2.4	91	100.0	85	93.4	6	6.6
West	30	100.0	30	100.0	0	0.0	4	100.0	3	75.0	1	25.0



Section 5—3
Faculty Workload, Credential,
and Salary



Faculty Workload, Credential, and Salary

Introduction

Nurse educators, while clearly a significant segment of the nursing supply, are often neglected in discussions of nursing manpower and resource utilization. An analysis of the educational backgrounds, employment requirements, working conditions, and earnings of faculty members will assist in understanding the potential obstacles and barriers in recruiting and retaining nurse faculty.

Faculty Workload

As a member of the academy, the contemporary nurse educator is subject to a variety of demands apart from those made by students. In addition to both classroom and clinical teaching, faculty members are required to prepare their lectures and examinations, hold office hours for student advisement, sit on committees, and conduct and publish their own work. In some instances, nurse educators are involved in faculty practices such as those offered by academic nursing centers.

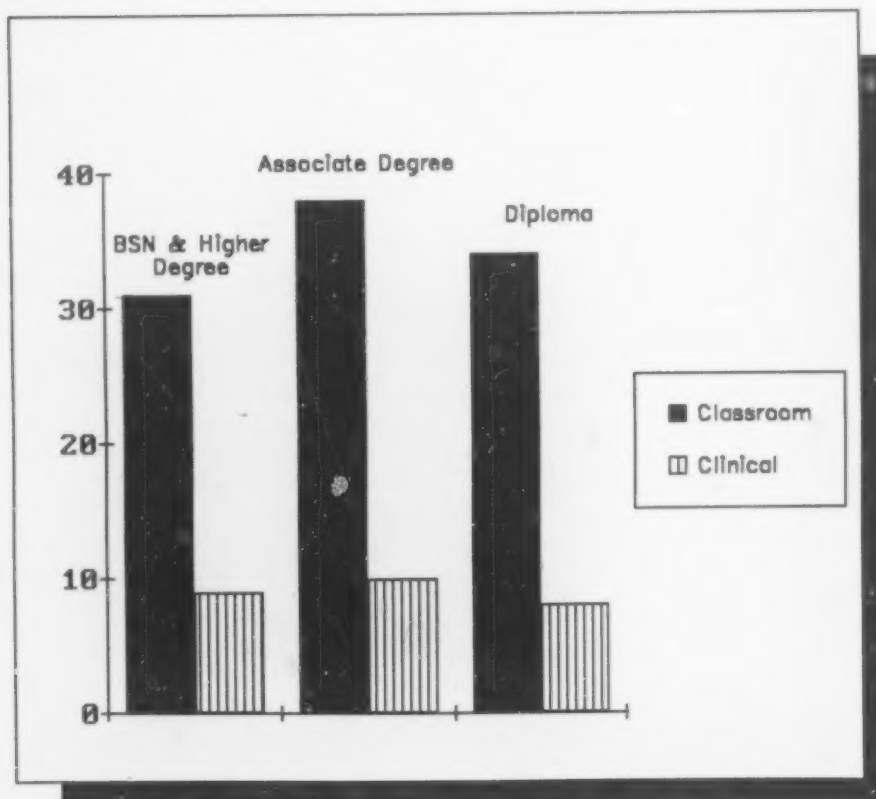


Figure 9
Average Number of Students in Classroom and
Clinical Settings by Program Type, 1990

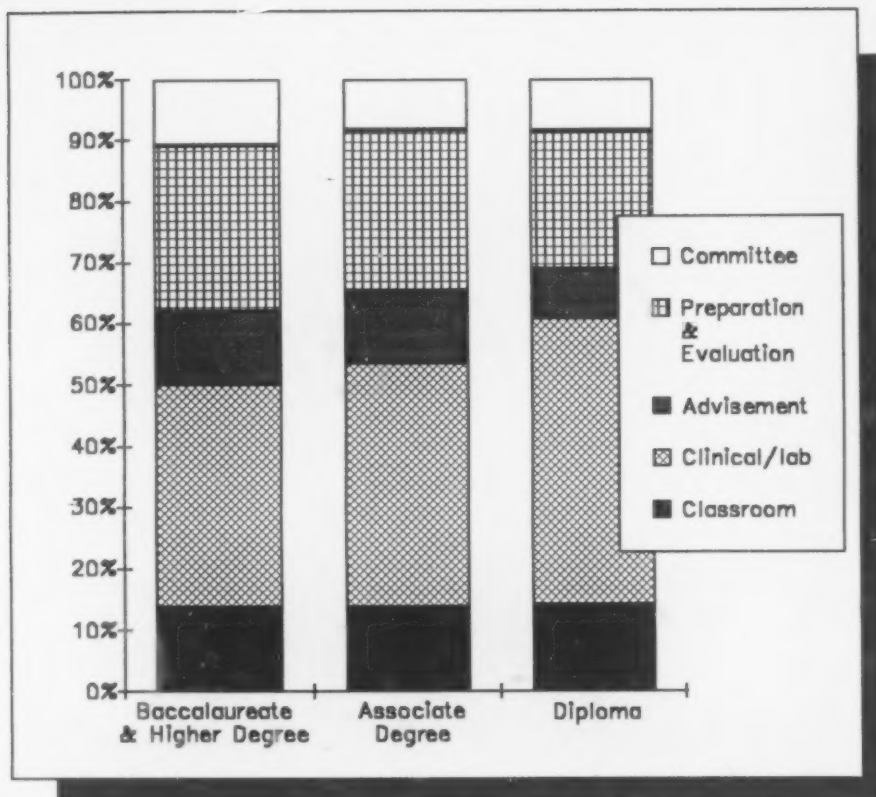


Figure 10
Faculty Workload by Program Type, 1990

Two different measures of faculty workload were included in the 1990 census of nurse faculty. First, deans and directors were queried to estimate the average number of students in both the clinical and classroom settings. Deans and directors were also requested to approximate the amount of time their typical faculty member spends per week on each of the following activities: classroom teaching, clinical/laboratory teaching, student advisement, preparation and evaluation, and committees/curriculum assignments.

Classroom and clinical teaching present different challenges for the nurse educator and, therefore, the desirable number of students in each setting varies. In 1990, the average number of students in a nursing classroom group was almost 35. For clinical groups the figure was closer to 9 (see Table 14). Associate degree programs report larger classroom and clinical groups than their baccalaureate or diploma counterparts. Baccalaureate and higher degree programs report the smallest classroom groups whereas diploma programs contain the smallest clinical groups (see Figure 9).

In a standard work week of 35-40 hours, nurse educators are primarily involved in teaching the clinical component of the nursing curricula, typically about 14 hours per week including "lab." An average of 9 hours per week are spent in preparation and evaluation and classroom teaching involves approximately 5 hours per week of the faculty workload (see Table 15).

A greater proportion of an average diploma educator's time is spent teaching clinical courses. Baccalaureate and higher degree faculty members, on the other hand, spend more time on committee assignments (see Figure 10).

Significant variations exist between baccalaureate programs that prepare basic students for RN licensure and those programs designed exclusively for students who are already RNs. Faculty teaching basic students typically spend 4 hours classroom teaching each week while their counterparts in baccalaureate programs for RNs spend closer to 7 hours in the classroom (see Table 16). On the other hand, basic baccalaureate faculty spend more time teaching clinical and "lab" than faculty teaching RNs (13 vs. 9 hours per week).

There are virtually no differences between public and private nursing schools relative to faculty workload (see Table 17).

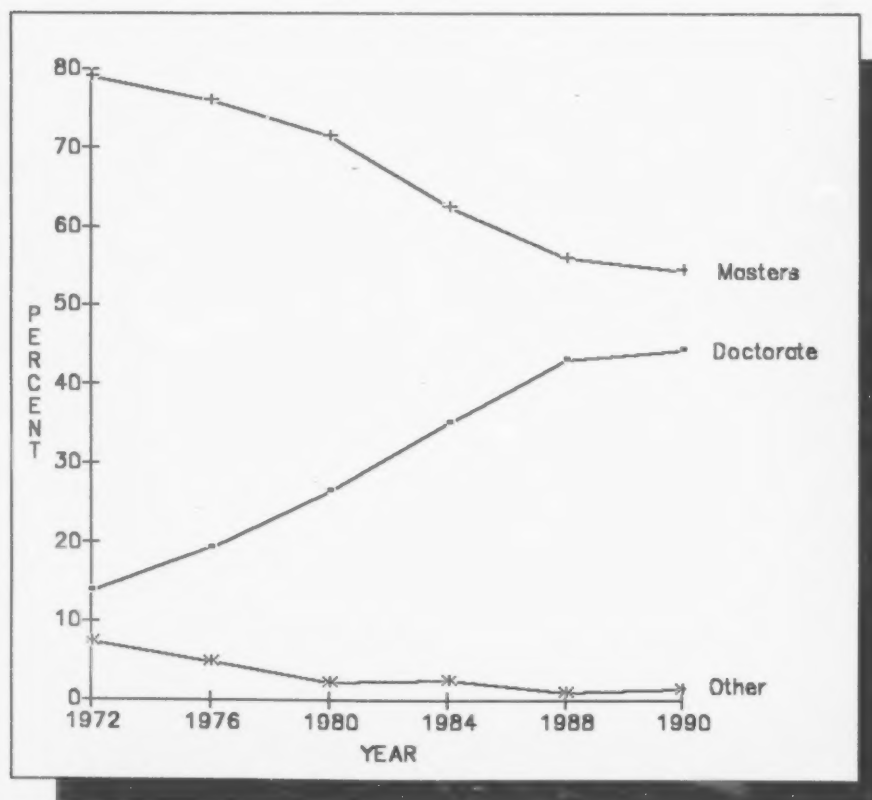


Figure 11
Highest Earned Credential of Chief Nurse
Administrators, 1972-1990

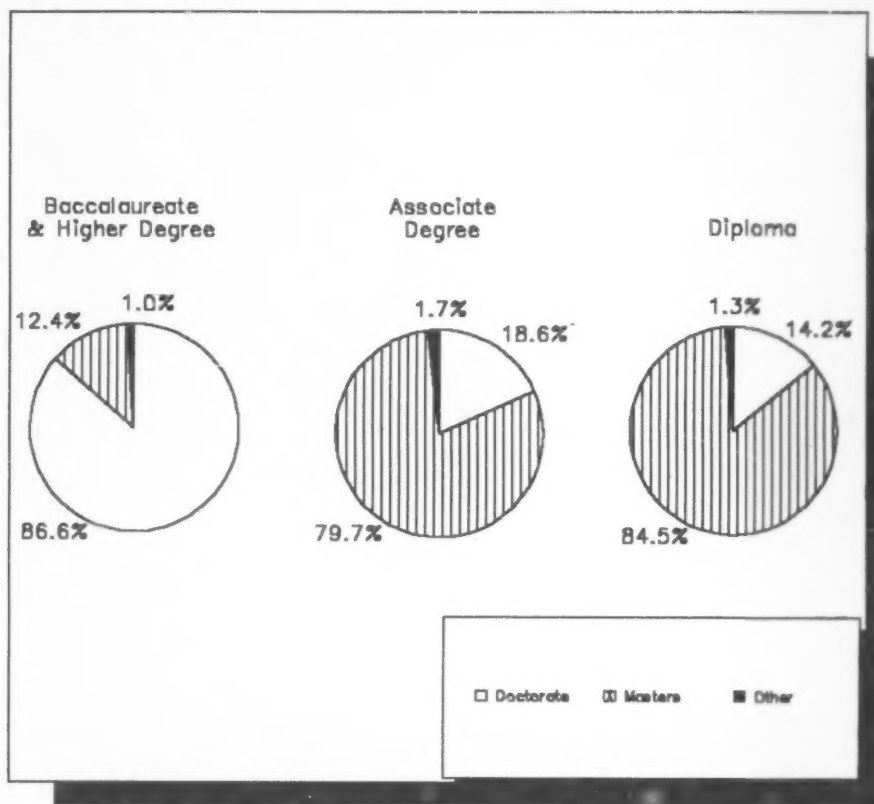


Figure 12
Highest Earned Credential of Chief Nurse
Administrators by Program Type, 1990

Highest Earned Credentials of Nurse Educators

Nurse faculty, as their colleagues in other disciplines, are often required to obtain advanced degrees to be considered for promotions and tenure. Hence, the trend toward increased credentialing has continued unabated among nurse educators. A growing percentage of chief nursing school administrators² are doctorally prepared. In 1972 fewer than 14 percent of the nurse administrators had earned doctorates and by 1990 the figure stood at over 44 percent (see Figure 11).

The overall trend toward doctoral preparation among nursing school administrators is primarily due to the dramatic growth of PhDs in baccalaureate and higher degree programs where the overwhelming majority (86.6%) of deans and directors have earned doctorates. Among associate degree and diploma educators the bulk have master's degrees (79.7% and 84.5%, respectively) and a significant number of those are studying for their doctorates (see Figure 12).

Similarly, there has been growth in the proportion of full-time faculty prepared at the doctoral level from under 3 percent in 1972 to over 21 percent in 1990. However, the majority of full-time faculty members at all types of nursing educational programs currently hold master's degrees (see Table 20).

Significant differences exist among the different program types relative to the highest earned credentials of full-time faculty. Fewer than 5 percent of associate degree faculty and just 1 percent of diploma faculty are prepared at the doctoral level whereas almost 40 percent of educators at the baccalaureate and higher degree programs hold doctorate degrees (see Figure 13a). Associate degree and diploma faculty are most likely to hold master's degrees as their highest earned credential.

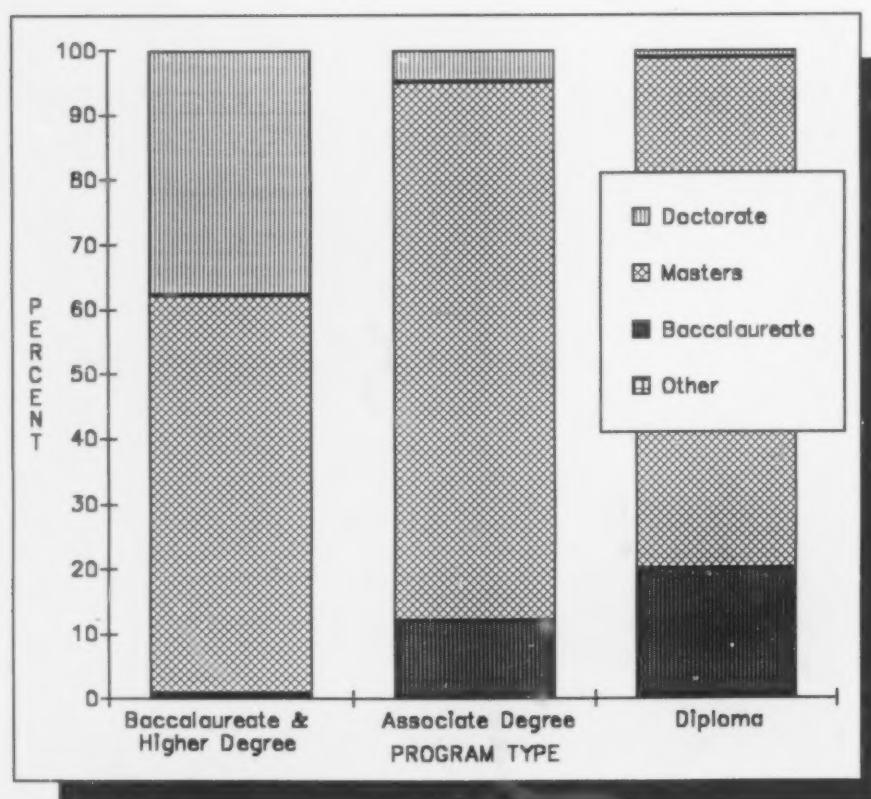


Figure 13a
Highest Earned Credential of Full-time Nurse Faculty
by Program Type, 1990

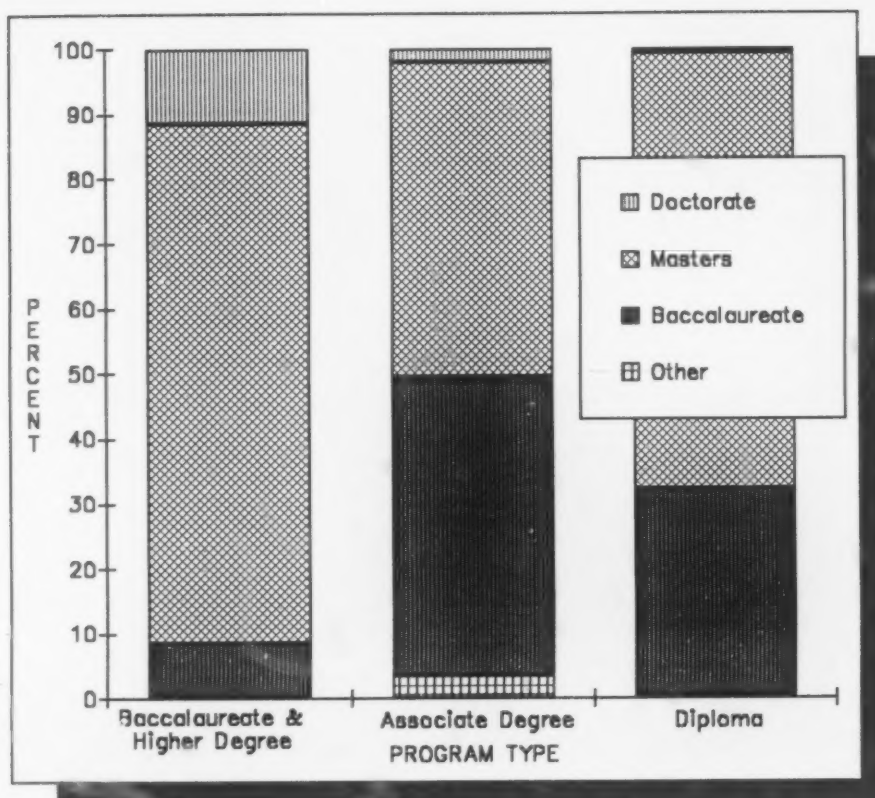


Figure 13b
Highest Earned Credential of Part-time Nurse
Faculty by Program Type, 1990

The proportion of doctorally prepared part-time faculty is quite small among all types of nursing educational programs. In fact, aside from baccalaureate and higher degree programs where 80 percent of the part-time faculty have master's degrees, the baccalaureate degree is more typical among part-time faculty at the associate degree and diploma levels (see Table 21 and Figure 13b).

Some regional variations exist as to the highest earned credential of full-time nurse educators. In the West, one quarter full-time faculty hold doctorates whereas in the North Atlantic 22 percent hold doctorates, and in the South 21.5 percent hold doctorates. In the Midwest, the figure stood at 19.2 percent of full-time faculty who hold doctorates (see Table 22).

Salaries of Full-Time Educators

Schools of nursing were requested to report the annual salaries of their full-time faculty by three different variables: rank (professor, associate professor, etc); highest earned credential (doctorate, master's, etc); type of appointment (academic, i.e., 9-10 months salary versus calendar year, i.e., 12-months salary).

As expected, salaries are significantly linked to rank and credential. As a general rule, however, those at a higher rank earn more than those with higher credentials at lower ranks. For example, a professor with a master's degree earns a bit more than a doctorally prepared associate professor in baccalaureate and higher degree programs (see Table 23 and Figures 14-17b).

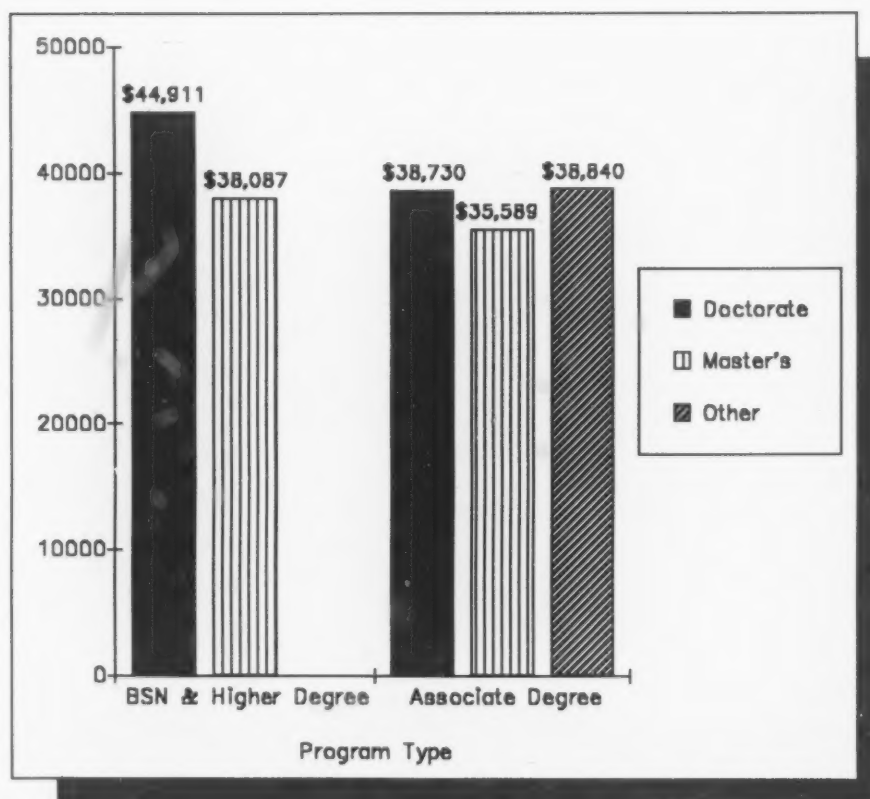


Figure 14
Mean Salaries of Full-time Professors by Program
Type, 1990

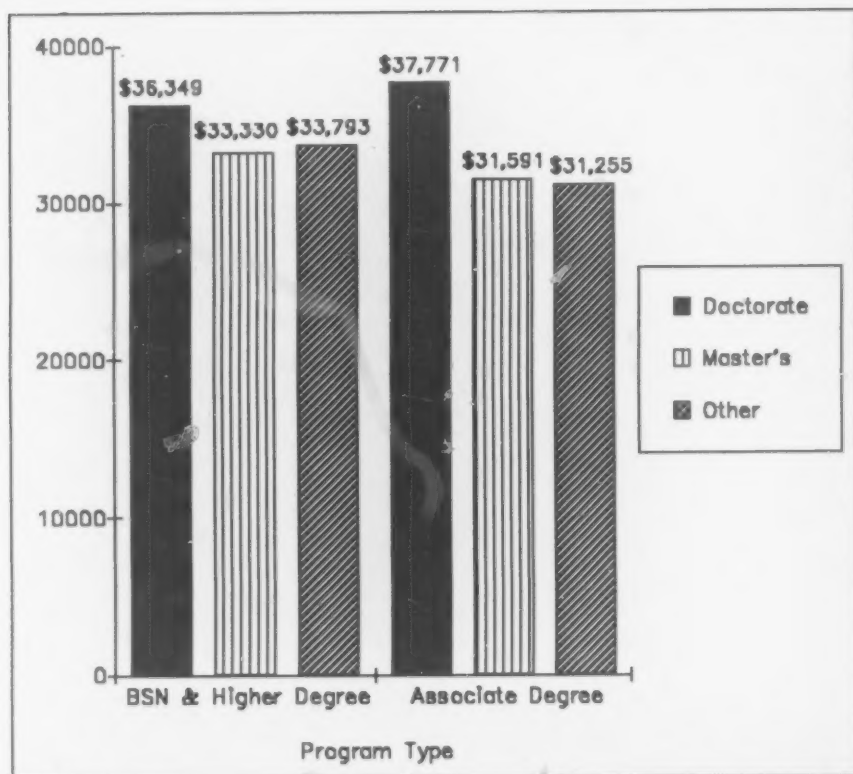


Figure 15
Mean Salaries of Full-time Associate Professors by
Program Type, 1990

Moreover, those paid on a calendar schedule earn higher salaries than those on an academic schedule. Approximately three-quarters of faculty are on academic schedules and note that the higher calendar salary may not translate to a higher salary rate since it is distributed over a 12-month timetable rather than 9-10 months.

Generally speaking, baccalaureate and higher degree faculty members receive higher salaries than their associate degree and diploma counterparts (see Tables 23-25). Some regional differences exist with slightly higher salaries in the North Atlantic and West and slightly lower salaries in the Midwest and South. It is recommended that the salary tables be read carefully when making comparisons.

It is instructive to analyze a nurse educator's salary relative to the salary of a non-nursing or average faculty member. According to a recent research article released by the American Council on Education, in 1989 a college faculty member earned on average \$39,410 (see Figure 18). Higher salaries were reported at independent research universities followed by public comprehensive universities, independent four-year colleges, and public two-year colleges.

For example, the report states that a full professor at an independent research university earned approximately \$10,000 more than a counterpart at a public research institute. Furthermore, the salary range for full professors at four institutions was \$36,000 to \$47,000 while the salaries for full professors at two-year colleges ranged from \$25,000 to \$41,000.

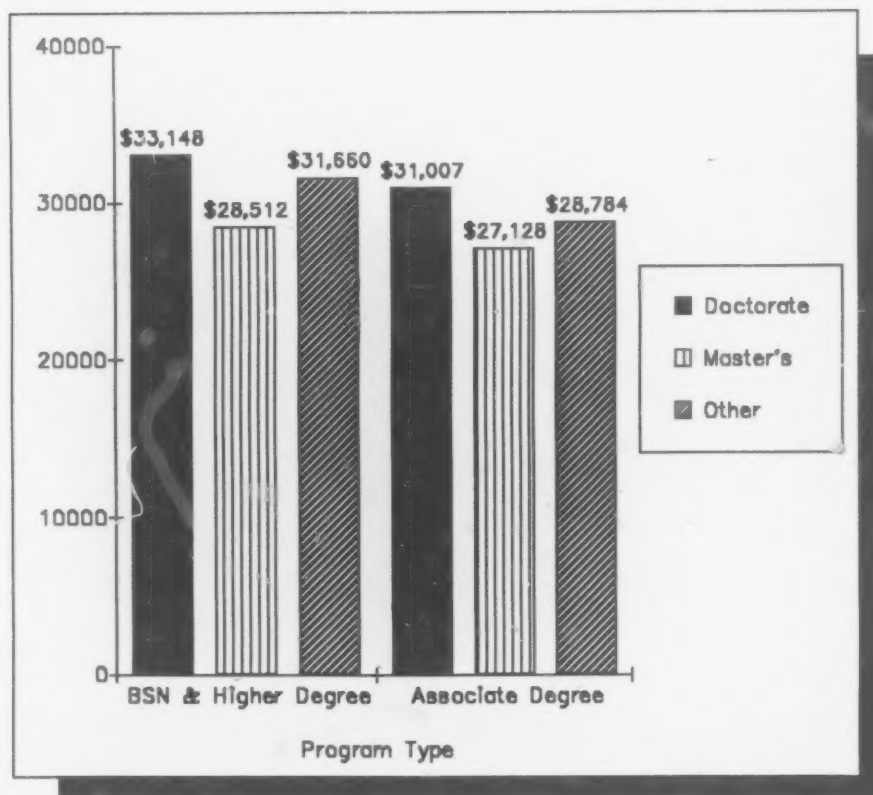


Figure 16
Mean Salaries of Full-time Assistant Professors by
Program Type, 1990

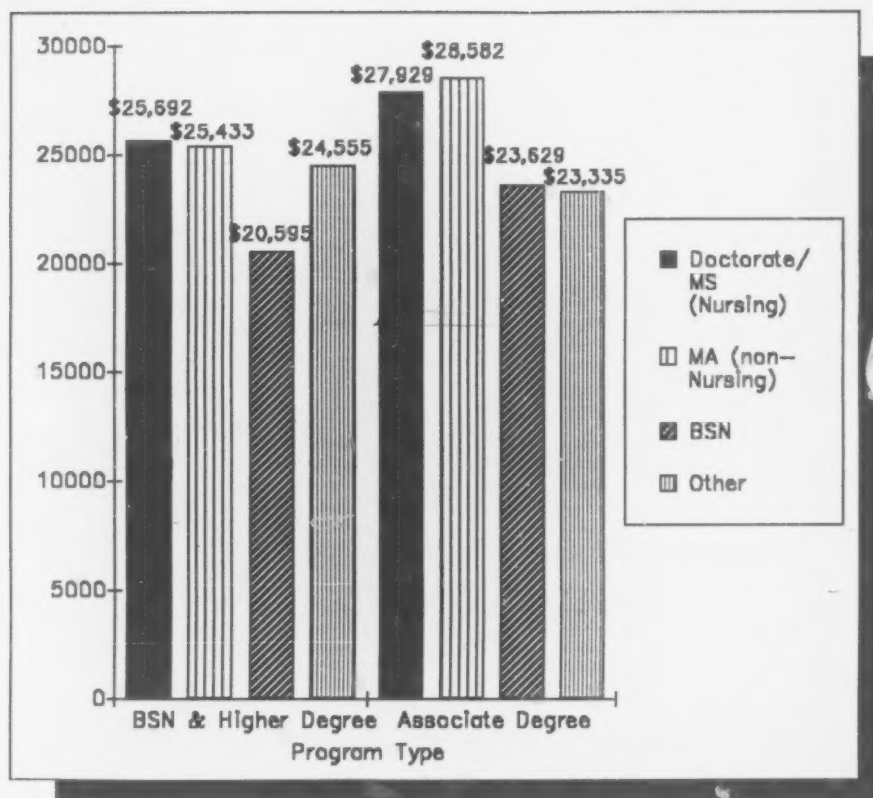


Figure 17a
Mean Salaries of Full-time RN Instructors by
Program Type, 1990

Particularly relevant to nursing, the report also found that "men earned more than women at every academic rank. These salary differences can be attributed to several factors, including a lower tenure rate for women than men, a scarcity of women in the highest-paying fields and in the highest-paying institutions, and the general concentration of women in the lower academic ranks." On average, a male professor earned \$51,150 in 1989 while a female professor drew a salary of \$45,190.

Implications

One educator commenting on faculty salaries recently concluded that "the greatest threat to the excellence of higher education lies not in moral or intellectual decay, but in the inability of academe to attract and retain the best and the brightest to its faculty ranks" (American Council of Education, 1990). This is particularly true of nursing where a growing number of attractive, challenging, and lucrative career opportunities exist outside the academy. The demand for nurses in alternative health care delivery systems, research, and administration will continue to attract highly qualified nurses who might otherwise enter academia. The expansion of professional opportunities for nurses has produced a dilemma for the profession: as opportunities emerge elsewhere, who will remain to prepare the future cadre of nurses? It is time for nurse educators to ponder the ramifications of this development.

1. Data reported was collected by U.S. Equal Employment Opportunity Commission in 1985.
2. The chief nurse administrator is defined as the one individual who has the primary responsibility for the nursing program and includes dean, director, head of department, or chair.

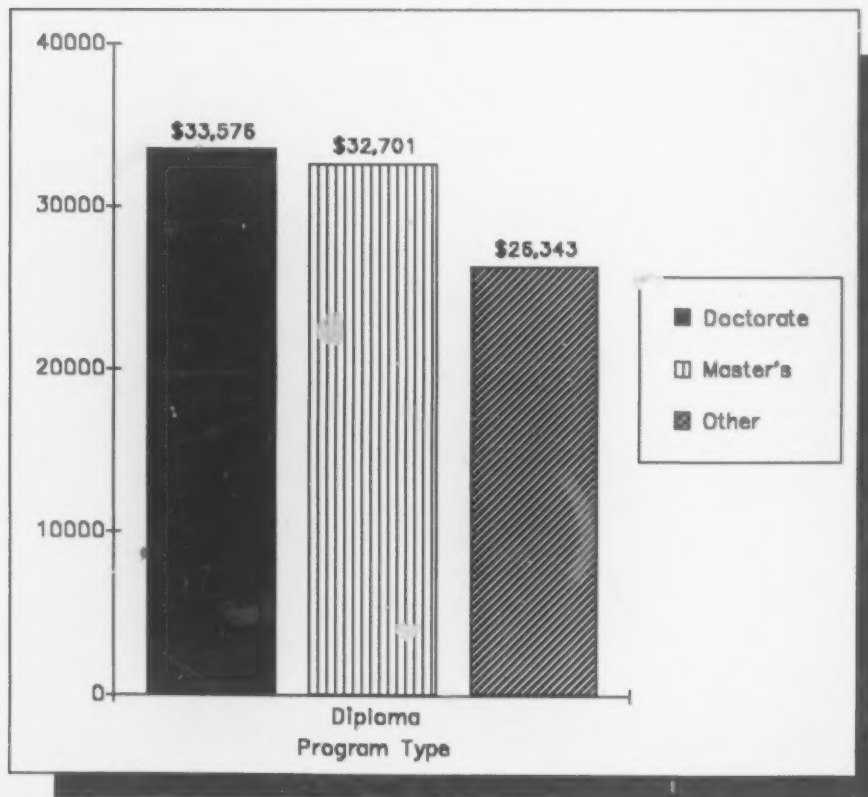


Figure 17b
Mean Salaries of Full-time Instructors in Diploma Programs, 1990

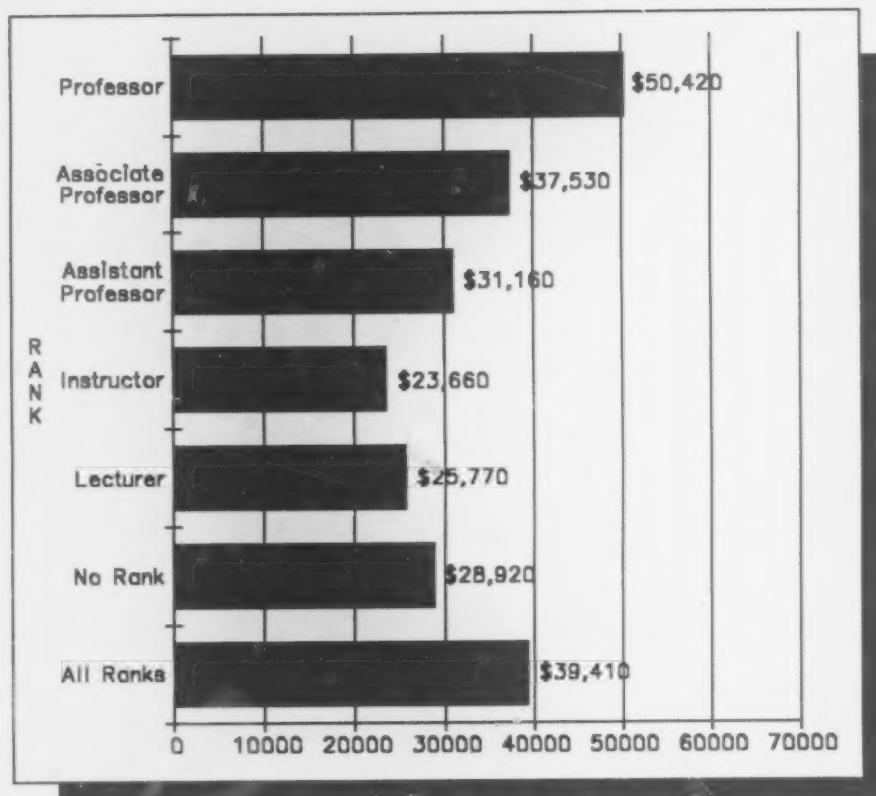


Figure 18
Average Salaries of College Faculty Members, 1989

Source: "The Annual Report on the Economic Status of the Profession, 1988-1989," *Academe*, March-April 1989.

Table 14
AVERAGE NUMBER OF STUDENTS IN CLASSROOM AND CLINICAL GROUPS
BY TYPE OF PROGRAM AND REGION, 1990

REGION AND TYPE OF PROGRAM	NUMBER OF PROGRAMS REPORTED	CLASSROOM GROUP	CLINICAL GROUP
All Regions	1,393	34.9	9.1
North Atlantic	345	35.7	9.1
Midwest	395	32.2	8.5
South	445	37.3	9.2
West	208	34.2	9.8
Baccalaureate & Higher Degree	532	30.6	8.7
North Atlantic	141	31.7	8.8
Midwest	165	28.8	8.0
South	163	31.1	9.0
West	63	32.0	9.0
Associate Degree	712	38.4	9.6
North Atlantic	131	41.0	9.9
Midwest	186	35.0	9.1
South	251	41.9	9.4
West	144	34.9	10.1
Diploma	149	33.8	8.0
North Atlantic	73	34.2	8.1
Midwest	44	32.5	7.7
South	31	33.2	7.9
West	1	85.0	11.0

Table 15
FULL-TIME FACULTY WORKLOAD (IN MEAN HOURS PER WEEK)
BY TYPE OF PROGRAM, ACTIVITY, AND REGION, 1990

PROGRAM TYPE AND REGION	NUMBER OF PROGRAMS REPORTING	FACULTY ACTIVITIES				
		Class Hours	Clinical Hours	Advisement	Preparation for Teaching	Committee Activities
All RN Programs	1,426	4.8	13.7	3.9	9.1	3.2
North Atlantic	350	4.7	13.0	3.7	8.6	3.5
Midwest	398	5.0	13.9	3.6	9.6	3.1
South	449	4.6	13.6	4.2	9.1	3.0
West	209	4.7	14.5	3.9	9.0	3.2
Baccalaureate & Higher Degree	550	4.6	12.3	3.9	9.2	3.6
North Atlantic	143	4.6	11.1	3.8	8.5	3.7
Midwest	166	4.7	12.7	3.8	10.1	3.8
South	166	4.4	12.7	3.9	9.0	3.1
West	64	4.6	13.1	3.7	8.9	4.1
Associate Degree	726	4.8	13.9	4.1	9.2	2.9
North Atlantic	133	4.4	12.8	4.0	9.3	3.4
Midwest	188	5.3	14.1	3.6	9.3	2.5
South	252	4.7	13.8	4.6	9.2	2.9
West	144	4.8	15.1	3.9	9.0	2.8
Diploma	150	5.2	17.1	2.9	8.3	3.1
North Atlantic	74	5.5	16.9	2.9	7.7	3.3
Midwest	44	4.8	17.9	2.8	9.3	3.0
South	31	4.9	16.5	3.1	8.1	2.7
West	1	7.0	18.0	6.0	6.0	3.0

Table 16
FULL-TIME FACULTY WORKLOAD (IN MEAN HOURS PER WEEK)
IN BASIC BACCALAUREATE AND BRN¹ PROGRAMS
BY ACTIVITY AND REGION, 1990

PROGRAM TYPE AND REGION	NUMBER OF PROGRAMS REPORTING	FACULTY ACTIVITIES				
		Class Hours	Clinical Hours	Advisement	Preparation for Teaching	Committee Activities
Basic Baccalaureate	443	4.2	13.1	3.8	9.2	3.5
North Atlantic	104	4.2	12.3	3.7	8.4	3.5
Midwest	135	4.2	13.3	3.8	10.0	3.7
South	142	4.1	13.2	3.8	8.9	3.0
West	51	4.1	13.8	3.5	8.6	4.1
Baccalaureate Programs for RNs	95	6.6	8.9	4.3	9.7	4.0
North Atlantic	36	6.2	7.7	4.1	8.7	3.9
Midwest	27	7.2	9.0	4.0	10.7	4.3
South	21	6.4	9.8	4.3	9.7	3.9
West	11	6.9	10.9	5.2	10.5	4.1

¹BRN programs are baccalaureate programs designed exclusively for RNs.

Table 17
FACULTY WORKLOAD (IN MEAN HOURS PER WEEK)
BY ACTIVITY, FINANCIAL SUPPORT, AND TYPE OF PROGRAM, 1990

FINANCIAL SUPPORT	NUMBER OF PROGRAMS REPORTING	FACULTY ACTIVITIES				
		Class Hours	Clinical Hours	Advisement	Preparation for Teaching	Committee Activities
All RN Programs	1,426	4.8	13.7	3.9	9.1	3.2
Public	952	4.7	13.7	3.9	9.0	3.1
Private	473	4.8	13.7	3.8	9.5	3.3
Baccalaureate & Higher Degree	550	4.6	12.3	3.9	9.2	3.6
Public	272	4.3	12.3	3.7	8.9	3.8
Private	278	4.8	12.4	4.0	9.6	3.5
Associate Degree	726	4.8	13.9	4.1	9.2	2.9
Public	646	4.8	14.1	4.1	9.0	2.9
Private	80	4.6	12.5	4.1	10.9	3.1
Diploma	150	5.2	17.1	2.9	8.3	3.1
Public	34	5.5	16.3	2.8	8.0	3.0
Private	115	5.1	17.3	3.0	8.3	3.1

Table 18
FACULTY WORKLOAD (IN MEAN HOURS PER WEEK) IN BASIC BACCALAUREATE
AND BRN¹ PROGRAMS BY ACTIVITY AND FINANCIAL SUPPORT, 1990

FINANCIAL SUPPORT	NUMBER OF PROGRAMS REPORTING	FACULTY ACTIVITIES				
		Class Hours	Clinical Hours	Advisement	Preparation for Teaching	Committee Activities
Basic Baccalaureate	443	4.2	13.1	3.8	9.2	3.5
Public	226	4.0	13.0	3.6	8.3	3.6
Private	217	4.4	13.2	4.0	9.5	3.5
Baccalaureate Programs for RNs	95	6.6	8.9	4.3	9.7	4.0
Public	41	6.1	8.9	4.5	9.6	4.7
Private	54	7.0	8.9	4.1	9.7	3.5

¹BRN programs are baccalaureate programs designed exclusively for RNs

Table 19
HIGHEST EARNED CREDENTIAL OF NURSING EDUCATION ADMINISTRATORS
BY TYPE OF PROGRAM, 1972-1990

YEAR	TOTAL ADMINISTRATORS REPORTED		HIGHEST EARNED CREDENTIAL					
			DOCTORATE		MASTER'S		OTHER	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent
ALL REPORTING PROGRAMS								
1972	1,260	100.0	171	13.6	997	79.1	92	7.3
1974	1,310	100.0	203	15.5	1,032	78.8	75	5.7
1976	1,317	100.0	252	19.2	1,001	76.0	63	4.8
1978	1,270	100.0	297	23.4	939	73.9	34	2.7
1980	1,344	100.0	355	26.4	960	71.4	29	2.2
1982	1,348	100.0	432	32.1	898	66.6	18	1.3
1984	1,499	100.0	524	35.0	937	62.5	38	2.5
1986	1,439	100.0	601	41.8	821	57.1	17	0.1
1988	1,370	100.0	589	43.0	767	56.0	14	1.0
1990	1,365	100.0	603	44.2	743	54.4	19	1.4
BACCALAUREATE AND HIGHER DEGREE PROGRAMS								
1972	274	100.0	142	51.8	131	47.8	1	0.4
1974	301	100.0	166	55.2	134	44.5	1	0.3
1976	347	100.0	205	59.1	140	40.3	2	0.6
1978	343	100.0	239	69.7	102	29.7	2	0.6
1980	414	100.0	269	65.0	144	34.8	1	0.2
1982	453	100.0	321	70.9	132	29.1	0	0.0
1984	535	100.0	381	71.2	154	28.8	0	0.0
1986	547	100.0	423	77.3	122	22.3	2	0.4
1988	540	100.0	422	78.1	114	21.1	4	0.7
1990	523	100.0	453	86.6	65	12.4	5	1.0
ASSOCIATE DEGREE PROGRAMS								
1972	441	100.0	19	4.3	402	91.2	20	4.5
1974	532	100.0	29	5.5	481	90.4	22	4.1
1976	572	100.0	40	7.0	505	88.3	27	4.7
1978	590	100.0	50	8.5	526	89.1	14	2.4
1980	634	100.0	77	12.2	539	85.0	18	2.8
1982	620	100.0	99	16.0	511	82.4	10	1.6
1984	712	100.0	128	18.0	552	77.5	32	4.5
1986	676	100.0	154	22.7	514	75.8	10	1.3
1988	661	100.0	147	22.2	504	76.2	10	1.5
1990	694	100.0	129	18.6	553	79.7	12	1.7
DIPLOMA PROGRAMS								
1972	545	100.0	10	1.8	464	85.2	71	13.0
1974	477	100.0	8	1.7	417	87.4	52	10.9
1976	398	100.0	8	2.0	356	89.5	34	8.5
1978	337	100.0	8	2.4	311	92.3	18	5.3
1980	296	100.0	9	3.0	277	93.6	10	3.4
1982	275	100.0	12	4.4	255	92.7	8	2.9
1984	252	100.0	15	6.0	231	91.7	6	2.4
1986	214	100.0	24	11.2	185	86.4	5	2.3
1988	169	100.0	20	11.8	149	88.2	0	0.0
1990	148	100.0	21	14.2	125	84.5	2	1.3

Table 20
HIGHEST EARNED CREDENTIAL OF FULL-TIME NURSE FACULTY BY TYPE OF PROGRAM, 1972-1990¹

YEAR	TOTAL FACULTY REPORTED		HIGHEST EARNED CREDENTIAL							
			DOCTORATE		MASTER'S		BACCALAUREATE		OTHER	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
ALL REPORTING PROGRAMS										
1972	16,794	100.0	445	2.6	8,139	48.5	6,589	39.2	1,621	9.7
1974	19,204	100.0	682	3.6	9,985	52.0	7,110	37.0	1,427	7.4
1976	20,572	100.0	887	4.3	11,687	56.8	6,975	33.9	1,023	5.0
1978	20,217	100.0	1,062	5.3	12,637	62.5	5,865	29.0	653	3.2
1980	20,355	100.0	1,418	7.0	13,826	67.9	4,687	23.0	424	2.1
1982	19,742	100.0	1,657	8.4	14,085	71.3	3,751	19.0	249	1.3
1984	20,221	100.0	2,143	10.6	14,797	73.2	3,104	15.4	177	0.9
1986	17,978	100.0	2,404	13.0	13,480	75.0	1,969	10.7	125	0.6
1988	17,083	100.0	3,160	18.5	12,605	73.8	1,254	7.3	64	0.4
1990	16,656	100.0	3,565	21.4	11,890	71.4	1,147	6.9	54	0.3
BACCALAUREATE AND HIGHER DEGREE PROGRAMS										
1972	5,534	100.0	408	7.4	4,530	81.9	594	10.7	2	0.0
1974	7,044	100.0	621	8.8	5,578	79.2	833	11.8	12	0.2
1976	8,567	100.0	817	9.5	6,737	78.7	984	11.5	29	0.3
1978	8,794	100.0	992	11.3	7,072	80.4	717	8.2	13	0.1
1980	9,531	100.0	1,278	13.4	7,763	81.4	485	5.1	5	0.1
1982	9,502	100.0	1,533	16.1	7,647	80.5	321	3.4	1	0.0
1984	9,827	100.0	1,967	20.0	7,594	77.3	259	2.6	6	0.1
1986	9,184	100.0	2,176	23.7	6,844	74.5	164	1.8	0	0.0
1988	9,074	100.0	2,921	32.2	6,045	66.6	103	1.1	5	0.1
1990	8,594	100.0	3,240	37.7	5,272	61.3	67	0.8	15	0.2
ASSOCIATE DEGREE PROGRAMS										
1972	3,588	100.0	25	0.7	2,077	57.9	1,401	39.0	85	2.4
1974	4,995	100.0	46	0.9	2,824	56.5	1,962	39.3	163	3.3
1976	5,680	100.0	57	1.0	3,304	58.2	2,147	37.8	172	3.0
1978	5,939	100.0	56	0.9	3,795	63.9	1,927	32.5	161	2.7
1980	6,036	100.0	128	2.1	4,216	69.8	1,593	26.4	79	1.3
1982	5,863	100.0	108	1.8	4,394	74.9	1,295	22.1	52	0.9
1984	6,452	100.0	162	2.5	4,977	77.1	1,238	19.2	75	1.2
1986	5,907	100.0	200	3.4	4,729	80.1	929	15.7	52	0.9
1988	5,986	100.0	218	3.6	5,017	83.8	712	11.9	39	0.7
1990	6,208	100.0	303	4.9	5,157	83.0	725	11.7	23	0.4
DIPLOMA PROGRAMS										
1972	7,672	100.0	12	0.1	1,532	20.0	4,594	59.9	1,534	20.0
1974	7,165	100.0	15	0.2	1,583	22.1	4,315	60.2	1,252	17.5
1976	6,325	100.0	13	0.2	1,646	26.0	3,844	60.8	822	13.0
1978	5,484	100.0	14	0.3	1,770	32.3	3,221	58.7	479	8.7
1980	4,788	100.0	12	0.2	1,847	38.6	2,609	54.5	320	6.7
1982	4,377	100.0	16	0.3	2,044	46.7	2,135	48.8	182	4.2
1984	3,942	100.0	14	0.4	2,226	56.5	1,606	40.7	96	2.5
1986	2,884	100.0	28	1.0	1,907	66.1	876	30.4	73	2.5
1988	2,023	100.0	21	1.0	1,543	76.3	439	21.7	20	1.0
1990	1,854	100.0	22	1.2	1,461	78.8	355	19.1	16	0.9

¹ Chief administrator of programs not included in this table.

Table 21
HIGHEST EARNED CREDENTIAL OF PART-TIME NURSE FACULTY BY TYPE OF PROGRAM, 1972-1990

YEAR	TOTAL PART-TIME FACULTY REPORTED		HIGHEST EARNED CREDENTIAL							
			DOCTORATE		MASTER'S		BACCALAUREATE		OTHER	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
ALL REPORTING PROGRAMS										
1972	2,879	100.0	73	2.5	1,054	36.6	1,343	46.7	409	14.2
1974	3,780	100.0	104	2.8	1,381	36.5	1,815	48.0	480	12.7
1976	4,121	100.0	116	2.8	1,626	39.4	1,952	47.4	427	10.4
1978	4,457	100.0	131	2.9	1,975	44.3	2,043	45.9	308	6.9
1980	4,781	100.0	114	2.4	2,379	49.8	1,977	41.3	311	6.5
1982	5,167	100.0	189	3.7	2,673	51.7	2,089	40.4	216	4.2
1984	6,295	100.0	200	3.2	3,488	55.4	2,355	37.4	252	4.1
1986	5,818	100.0	330	5.7	3,728	64.1	1,645	28.3	115	2.0
1988	5,450	100.0	346	6.3	3,500	64.2	1,481	27.2	123	2.3
1990	6,106	100.0	353	5.8	3,851	63.1	1,778	29.1	124	2.0
BACCALAUREATE AND HIGHER DEGREE PROGRAMS										
1972	877	100.0	39	4.5	566	64.5	266	30.3	6	0.7
1974	1,338	100.0	76	5.7	819	61.2	431	32.2	12	0.9
1976	1,761	100.0	91	5.2	1,098	62.4	548	31.1	24	1.3
1978	1,919	100.0	109	5.7	1,278	66.6	522	27.2	10	0.5
1980	2,108	100.0	96	4.6	1,589	75.4	418	19.8	4	0.2
1982	2,254	100.0	177	7.9	1,672	74.2	404	17.9	1	0.0
1984	2,726	100.0	170	6.2	2,138	78.4	416	15.3	2	0.0
1986	2,962	100.0	282	9.5	2,379	80.3	299	10.1	2	0.1
1988	2,622	100.0	265	10.1	2,132	81.3	218	8.3	7	0.3
1990	2,571	100.0	290	11.3	2,057	80.0	217	8.4	7	0.3
ASSOCIATE DEGREE PROGRAMS										
1972	660	100.0	3	0.5	207	31.4	389	58.9	61	9.2
1974	1,210	100.0	17	1.4	357	29.5	685	56.6	151	12.5
1976	1,419	100.0	18	1.3	357	25.2	874	61.6	170	11.9
1978	1,622	100.0	8	0.5	486	30.0	989	61.0	139	7.5
1980	1,852	100.0	12	0.7	580	31.3	1,082	58.4	178	9.6
1982	2,146	100.0	7	0.3	768	35.8	1,240	57.8	131	6.1
1984	2,821	100.0	24	0.9	1,106	39.2	1,495	53.0	196	6.9
1986	2,317	100.0	39	1.7	1,101	47.5	1,093	47.2	84	3.6
1988	2,433	100.0	75	3.1	1,138	46.8	1,114	45.8	106	4.4
1990	3,109	100.0	60	1.9	1,508	48.5	1,427	45.9	114	3.7
DIPLOMA PROGRAMS										
1972	1,342	100.0	31	2.3	281	20.9	688	51.3	342	25.5
1974	1,232	100.0	11	0.9	205	16.7	699	56.7	317	26.7
1976	941	100.0	7	0.7	171	18.2	530	56.3	233	24.8
1978	916	100.0	14	1.5	111	23.0	532	58.1	159	17.4
1980	821	100.0	6	0.7	210	25.6	477	58.1	128	15.2
1982	767	100.0	5	0.7	233	30.4	445	58.0	84	10.9
1984	748	100.0	6	0.8	244	32.6	444	59.4	54	7.2
1986	539	100.0	9	1.7	248	46.0	253	46.9	29	5.4
1988	395	100.0	6	1.5	230	58.2	149	37.7	10	2.5
1990	426	100.0	3	0.7	286	67.1	134	31.5	3	0.7

Table 22
HIGHEST EARNED CREDENTIAL OF FULL-TIME FACULTY BY REGION, 1972-1990

YEAR BY REGION	TOTAL FULL-TIME FACULTY REPORTED		HIGHEST EARNED CREDENTIAL							
			Doctorate		Master's		Baccalaureate		Other	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
North Atlantic										
1972	5,948	100.0	163	2.7	2,816	47.3	2,313	38.9	656	11.1
1974	6,232	100.0	216	3.5	3,205	51.4	2,282	36.6	529	8.5
1976	6,000	100.0	249	4.2	3,420	57.0	1,987	33.1	344	5.6
1978	5,498	100.0	273	5.0	3,508	63.8	1,514	27.5	203	3.7
1980	5,581	100.0	428	7.7	3,806	68.2	1,205	21.6	142	2.5
1982	5,333	100.0	493	9.2	3,798	71.2	953	17.9	89	1.7
1984	5,128	100.0	535	10.4	3,763	73.4	779	15.2	51	1.0
1986	4,980	100.0	705	14.2	3,731	74.9	513	10.3	31	0.6
1988	4,083	100.0	785	19.2	3,018	73.9	269	6.6	11	0.3
1990	4,181	100.0	919	22.0	3,018	72.2	226	5.4	18	0.4
Midwest										
1972	4,961	100.0	106	2.1	2,116	42.7	2,155	43.4	584	11.8
1974	5,693	100.0	176	3.1	2,596	45.6	2,403	42.2	518	9.1
1976	6,146	100.0	231	3.8	3,044	49.5	2,496	40.6	375	6.1
1978	6,245	100.0	295	4.7	3,406	54.5	2,296	36.8	248	4.0
1980	6,048	100.0	351	5.8	3,697	61.1	1,836	30.4	164	2.7
1982	5,979	100.0	428	7.2	3,936	65.8	1,522	25.4	93	1.6
1984	6,299	100.0	537	8.5	4,448	70.6	1,243	19.7	71	1.1
1986	4,930	100.0	485	9.8	3,690	74.9	702	14.2	53	1.0
1988	4,690	100.0	783	16.7	3,351	71.4	524	11.2	32	0.7
1990	4,660	100.0	894	19.2	3,322	71.3	424	9.1	20	0.4
South										
1972	3,857	100.0	99	2.6	1,831	47.5	1,601	41.5	326	8.4
1974	4,906	100.0	168	3.4	2,456	50.1	1,948	39.7	334	6.8
1976	5,830	100.0	237	4.1	3,249	55.7	2,093	35.9	251	4.3
1978	5,947	100.0	282	4.7	3,779	63.5	1,724	29.0	162	2.8
1980	6,209	100.0	378	6.1	4,361	70.2	1,364	22.0	106	1.7
1982	6,060	100.0	466	7.7	4,507	74.4	1,030	17.0	57	0.7
1984	6,295	100.0	676	10.7	4,709	74.8	863	13.7	47	0.7
1986	5,762	100.0	772	13.4	4,357	75.6	601	10.4	32	0.5
1988	5,625	100.0	1,056	18.8	4,213	74.9	341	6.1	15	0.3
1990	5,580	100.0	1,198	21.5	4,019	72.0	351	6.3	12	0.2
West										
1972	2,028	100.0	77	3.8	1,376	67.9	520	25.6	55	2.7
1974	2,373	100.0	122	5.1	1,728	72.8	477	20.1	46	2.0
1976	2,596	100.0	170	6.5	1,974	76.1	399	15.4	53	2.0
1978	2,527	100.0	212	8.4	1,944	76.8	331	13.2	40	1.6
1980	2,517	100.0	261	10.4	1,962	77.9	282	11.2	12	0.5
1982	2,370	100.0	270	11.4	1,844	77.8	246	10.4	10	0.4
1984	2,499	100.0	395	15.8	1,877	75.1	219	8.8	8	0.4
1986	2,306	100.0	442	19.2	1,703	73.9	153	6.6	8	0.4
1988	2,504	100.0	597	23.8	1,766	70.5	135	5.4	6	0.2
1990	2,235	100.0	554	24.8	1,531	68.5	146	6.5	4	0.2

Table 23
MEAN SALARIES OF FULL-TIME BACCALAUREATE AND HIGHER DEGREE PROGRAM FACULTY
BY HIGHEST CREDENTIAL, TYPE OF APPOINTMENT, AND REGION, 1990

RANK AND HIGHEST EARNED CREDENTIAL	TOTAL UNITED STATES		NORTH ATLANTIC		MIDWEST		SOUTH		WEST	
	Academic	Calendar	Academic	Calendar	Academic	Calendar	Academic	Calendar	Academic	Calendar
Professor										
Doctorate	\$44,911	\$55,895	\$51,753	\$68,692	\$41,232	\$58,047	\$42,855	\$55,671	\$44,759	\$45,283
Master's Degree (Nursing)	38,087	47,367	48,727	*	35,669	*	32,722	*	41,142	*
Associate Professor										
Doctorate	\$36,349	\$47,403	\$36,855	\$48,407	\$37,210	\$52,532	\$35,822	\$43,772	\$34,740	\$44,538
Master's Degree (Nursing)	33,330	39,530	35,779	45,247	31,405	41,782	32,743	37,979	34,252	36,994
Other Credential	33,793	47,217	38,406	*	30,631	*	*	*	*	*
Assistant Professor										
Doctorate	\$33,148	\$38,902	\$35,078	\$41,892	\$33,443	\$33,877	\$32,899	\$37,180	\$29,933	\$45,209
Master's Degree (Nursing)	28,512	33,034	29,445	33,927	28,159	32,494	28,102	33,271	28,798	33,900
Other Credential	31,660	33,670	36,260	—	29,798	*	31,760	32,333	30,033	*
Instructor										
Doctorate/Master's Degree (Nursing)	\$25,692	\$34,808	\$25,876	\$35,734	\$23,989	\$37,788	\$26,721	\$32,251	\$27,160	*
Master's Degree (Non-Nursing)	25,433	30,036	24,454	*	26,119	26,074	26,266	33,559	26,080	*
Bachelor's Degree	20,595	*	*	—	20,829	*	20,802	*	*	—
Other Credential	24,555	*	—	—	24,900	*	24,094	—	—	—

*Too few respondents to warrant reporting.
 — No valid response in this category.

Table 24
MEAN SALARIES OF FULL-TIME ASSOCIATE DEGREE FACULTY
BY HIGHEST CREDENTIAL, TYPE OF APPOINTMENT, AND REGION, 1990

RANK AND HIGHEST EARNED CREDENTIAL	TOTAL UNITED STATES		NORTH ATLANTIC		MIDWEST		SOUTH		WEST	
	Academic	Calendar	Academic	Calendar	Academic	Calendar	Academic	Calendar	Academic	Calendar
Professor										
Doctorate	\$38,730	\$44,845	\$41,623	\$49,100	\$50,100	*	\$34,165	\$44,892	\$36,960	—
Master's Degree (Nursing)	35,589	40,065	34,052	40,017	41,188	*	32,652	41,885	36,551	*
Other Credential	38,840	40,570	36,276	*	39,825	37,250	40,395	41,825	39,206	—
Associate Professor										
Doctorate	\$37,771	\$39,385	\$41,972	*	\$44,288	—	\$34,504	\$40,731	\$37,039	—
Master's Degree (Nursing)	31,591	33,045	33,594	35,178	32,200	38,199	29,559	29,922	37,041	—
Other Credential	31,255	37,063	35,679	38,200	33,824	—	28,971	37,544	—	*
Assistant Professor										
Doctorate	\$31,007	\$31,550	\$33,320	—	—	—	\$28,200	\$31,550	\$39,050	—
Master's Degree (Nursing)	27,128	31,017	28,345	33,781	28,077	*	24,747	29,534	31,306	*
Other Credential	28,784	32,810	31,664	38,200	27,622	*	27,257	33,571	31,750	*
Instructor										
Doctorate/Master's Degree (Nursing)	\$27,929	\$33,570	\$26,486	\$37,461	\$29,471	\$30,645	\$26,453	\$33,960	\$30,429	\$33,498
Master's Degree (Non-Nursing)	28,582	28,544	32,747	*	28,640	28,261	25,494	26,956	33,812	45,000
Bachelor's Degree	23,629	27,647	24,330	*	23,430	25,391	22,330	28,839	26,733	27,713
Other Credential	23,335	30,187	23,322	—	20,935	27,210	22,815	35,900	26,679	30,429

*Too few respondents to warrant reporting.
 — No valid response in this category.

Table 25
MEAN SALARIES OF FULL-TIME DIPLOMA FACULTY
BY HIGHEST CREDENTIAL, TYPE OF APPOINTMENT, AND REGION, 1990

RANK AND HIGHEST EARNED CREDENTIAL	TOTAL UNITED STATES		NORTH ATLANTIC		MIDWEST		SOUTH		WEST	
	Academic	Calendar	Academic	Calendar	Academic	Calendar	Academic	Calendar	Academic	Calendar
Instructor										
Doctorate	\$33,576	\$34,474	\$36,779	\$35,001	\$30,482	\$33,851	\$33,412	\$33,616	0	*
Master's Degree (Nursing)	32,701	38,533	34,381	40,047	30,856	35,973	32,932	39,344	0	*
Other Credential	26,343	32,375	24,955	37,666	25,465	27,558	*	33,064	0	*
Other Faculty										
Doctorate	*	*	*	*	0	0	0	*	0	0
Master's Degree (Nursing)	*	*	*	*	0	*	0	*	0	0
Other Credential	0	*	0	0	0	*	0	*	0	0

*Too few respondents to warrant reporting.

PART SIX
NURSE EDUCATORS: LPN/LVN

Section 6-1
Executive Summary



EXECUTIVE SUMMARY

METHODOLOGY AND RESPONSE RATE

The biennial census of nurse educators was mailed in January 1990 to 1,048 LPN/LVN programs nationwide to track and monitor the number of full- and part-time faculty members, to examine their demographic and educational backgrounds, and to discern their workloads and salaries.

A response rate of 81.8 percent was obtained after two mailings, indicating that the census data are extremely reliable and valid (Table 1). When comparing data from one year to the next, please keep in mind that response rates change considerably from one iteration of the study to the other. In addition, use caution when extrapolating from one jurisdiction to the next because response rates vary from state to state.

TRENDS IN SUPPLY AND DEMAND FOR LPN/LVN EDUCATORS

After a dramatic dip in enrollments in the mid-1980s, enrollments to LPN/LVN programs began inching up in 1987 and stood at 47,000 as of October 1989.¹ In response to increasing student interest in LPN/LVN education, the total number of faculty has grown dramatically from 4,660 in 1988 to 5,925 in 1990. Indeed, the estimated number of full-time LPN/LVN educators grew 4 percent and part-time faculty jumped 22 percent in that two-year period (Figure 1). Simultaneously, the number of budgeted vacant positions grew to 99 in 1990—up from 85 vacant faculty positions in 1988.

In general, the geographic distribution of full-time LPN/LVN educators reflects the distribution of LPN/LVN programs. The South has the largest number of full-time educators, followed by the Midwest, North Atlantic, and West. In regard to part-time faculty, however, the greatest number are found in the Midwest, followed by the West, and then by a virtual tie in the South and North Atlantic. Apparently, the trend toward part-time employment is evident in all regions except the South, where the smallest proportion of part-time educators is reported (Figure 2).

HIGHEST EARNED CREDENTIALS OF LPN/LVN EDUCATORS

Over half of the chief educational administrators² at LPN/LVN programs hold master's degrees as their highest earned credential, and over one-quarter hold baccalaureate degrees (Table 4 and Figure 3). The growing trend toward master's education for this position has been evident since 1974.

¹ For more information on trends in LPN/LVN education, see *Nursing DataSource 1990 Vol. IV: Focus on Practical/Vocational Nursing*, National League for Nursing, New York.

² The chief nurse administrator is defined as the one individual who has the primary responsibility for the nursing program and includes dean, director, head of department, or chair.

Almost one-third of the full-time faculty at LPN/LVN programs hold master's degrees, and almost one-half have earned baccalaureate degrees. These percentages are almost identical to those found in 1988 (Figure 4 and Table 5). Similarly, the credentials for part-time educators have remained essentially unchanged over the past biennium (Table 6).

Some geographic variation exists regarding highest earned credentials of LPN/LVN educators. Faculty in the West are the most highly educated, with 2.5 percent holding doctorates, and over half with earned master's degrees (Table 7). Baccalaureate education is the norm among educators in the other three regions.

Upon closer examination of faculty credentials, it appears that almost equal numbers hold master's degrees in nursing and non-nursing disciplines (Table 9). Among those with baccalaureate degrees, the bulk majored in nursing.

RACIAL/ETHNIC BACKGROUND

The overwhelming majority of administrators of LPN/LVN programs are white (Table 11). The largest proportion of black administrators is found in the South. The greatest proportions of Asian, American Indian, and Hispanic administrators are located in the West. Similar trends are found among full-time faculty members (Figure 5 and Table 12).

The pattern of racial/ethnic distribution is slightly different among part-time LPN/LVN educators (Table 13). The South and West have similar proportions of Hispanic part-timers, and the Midwest has the largest percentage of American Indians (albeit the percentage is quite small).

MEN IN NURSING EDUCATION

Less than three percent of full- and part-time LPN/LVN faculty are men (Table 14). The largest group of male educators, both full- and part-time, is found in the South.

FACULTY WORKLOAD

The 1990 survey of nurse educators requested data regarding two indicators of faculty workload: the average number of hours spent on specific activities and the average number of students in classroom and clinical settings.

In a typical workweek, a full-time LPN/LVN educator spends ten hours teaching in the classroom and almost 18 hours teaching in the clinical setting (Figure 6 and Table 15). Almost seven hours per week are typically occupied with preparation. Some regional variations exist. The South reported more time spent in classroom and clinical teaching.

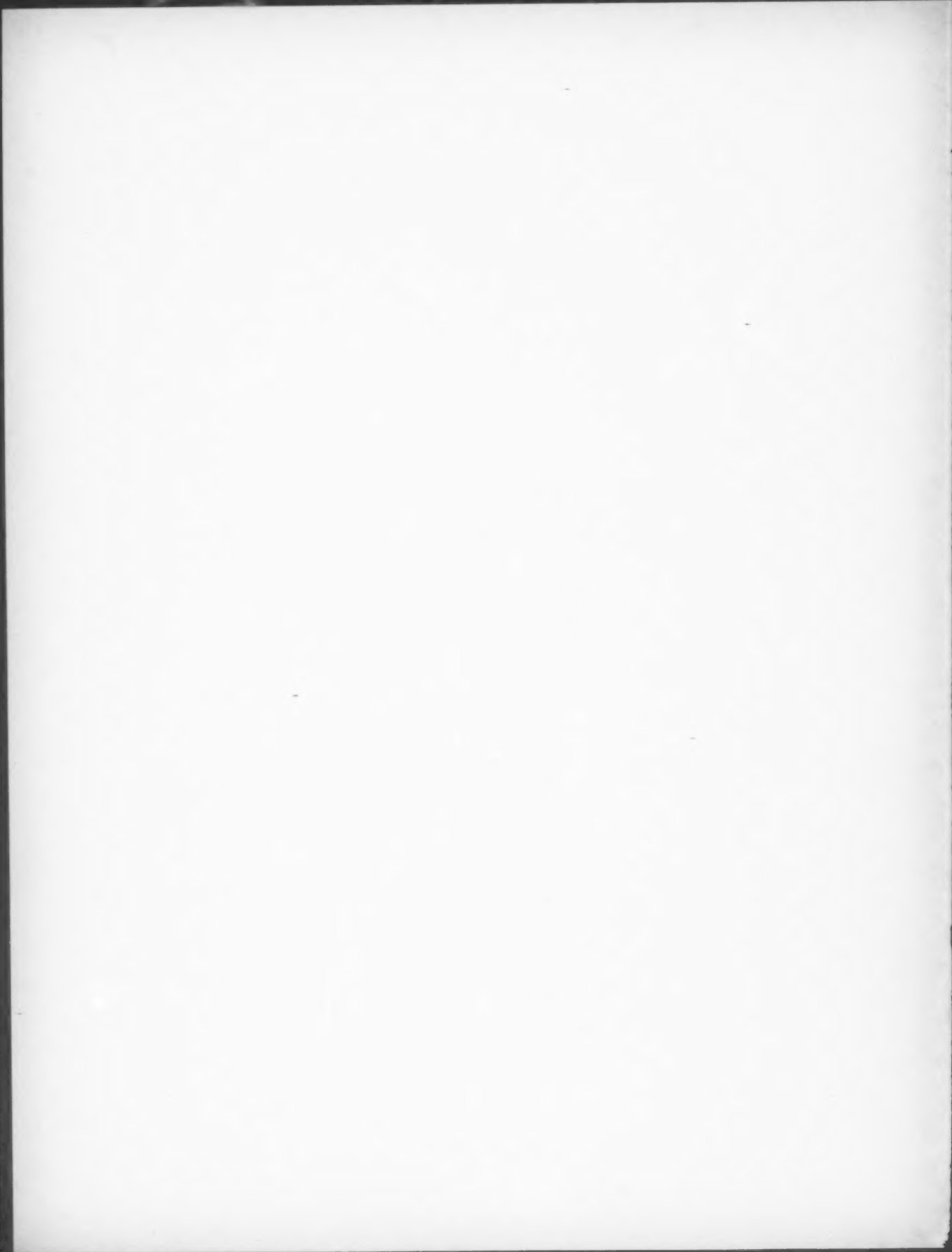
In regard to the average number of students, the typical LPN/LVN educator is responsible for almost 30 students in the classroom and more than 11 in the clinical setting. Again, some regional differences are observed. The South reported larger clinical groups and smaller classroom groups than the other regions (Table 16). The larger class size reported in the South may account for the greater number of hours spent in the classroom and clinical setting described above.

FACULTY SALARIES

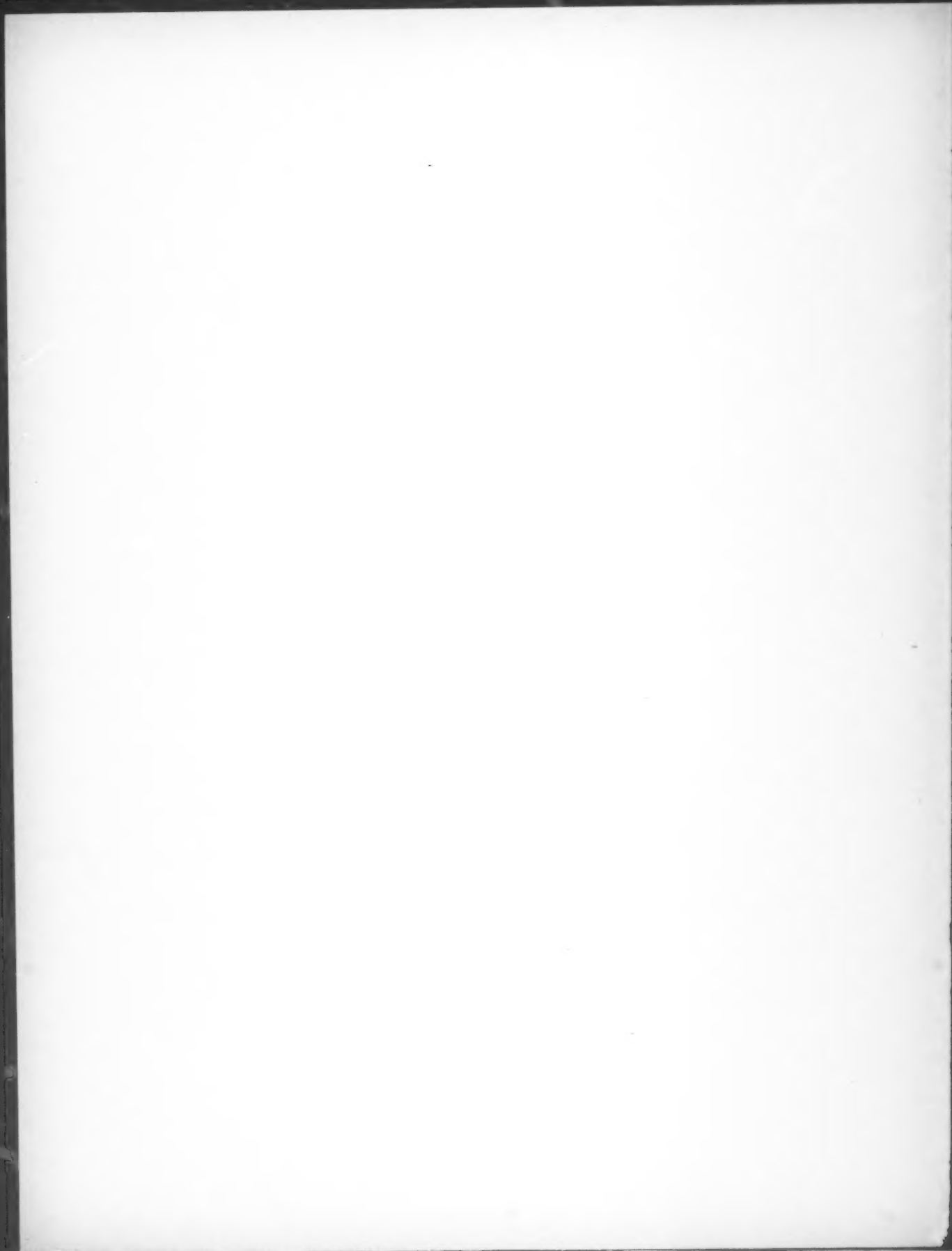
Salary data was collected for individuals employed on either calendar or academic schedules. A slightly larger number of LPN/LVN administrators are employed on a calendar year, and their average salary is \$42,225 (Table 17). The comparable figure for administrators on an academic schedule, i.e., nine/ten-month schedule, is \$32,820. Some geographic variations exist. The lowest salaries among administrators are found in the Midwest.

Surprisingly, salaries among LPN/LVN educators do not vary significantly by highest earned credential. On average, instructors with doctorates or master's degrees in nursing earn \$31,857 on academic-year schedules and \$34,805 on calendar-year schedules. Compare this to the fact that instructors with master's degrees in non-nursing disciplines earn in excess of \$34,000 on both academic or calendar schedules (Table 18). There is virtually no notable variation in faculty salaries among the different geographic regions.

*Peri Rosenfeld, PhD
Vice President
Division of Research*



Section 6-2
Graphs



**Estimated Number of LPN/LVN Educators: 20-Year Trend,
1970 to 1990**

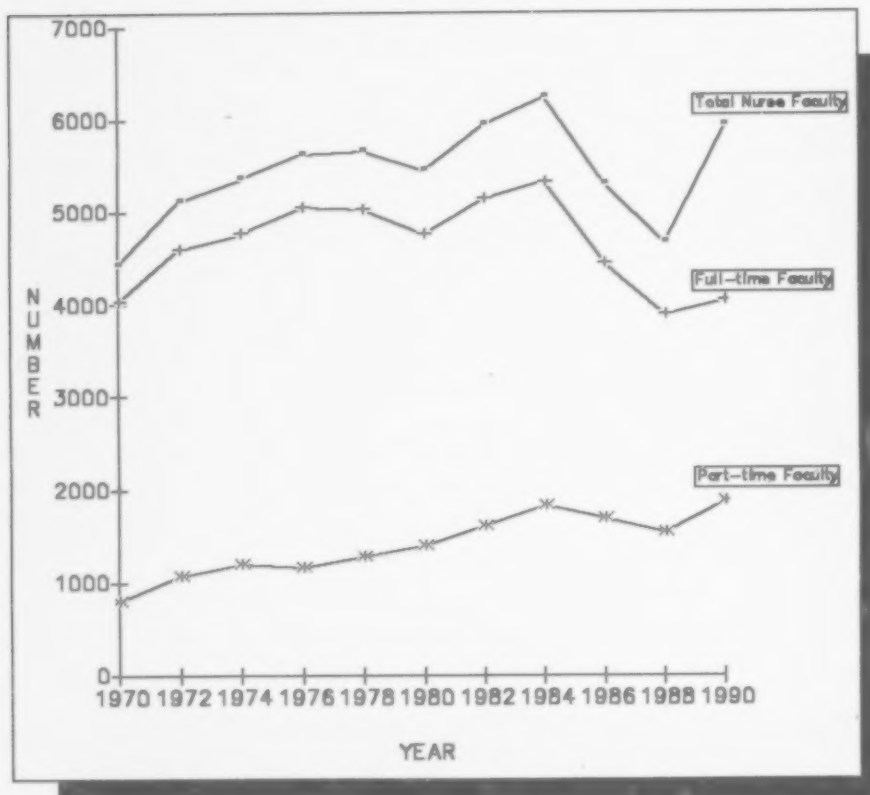


Figure 1. Estimated Number of LPN/LVN Educators: 20-Year Trend, 1970 to 1990

Geographic Distribution of LPN/LVN Educators, 1990

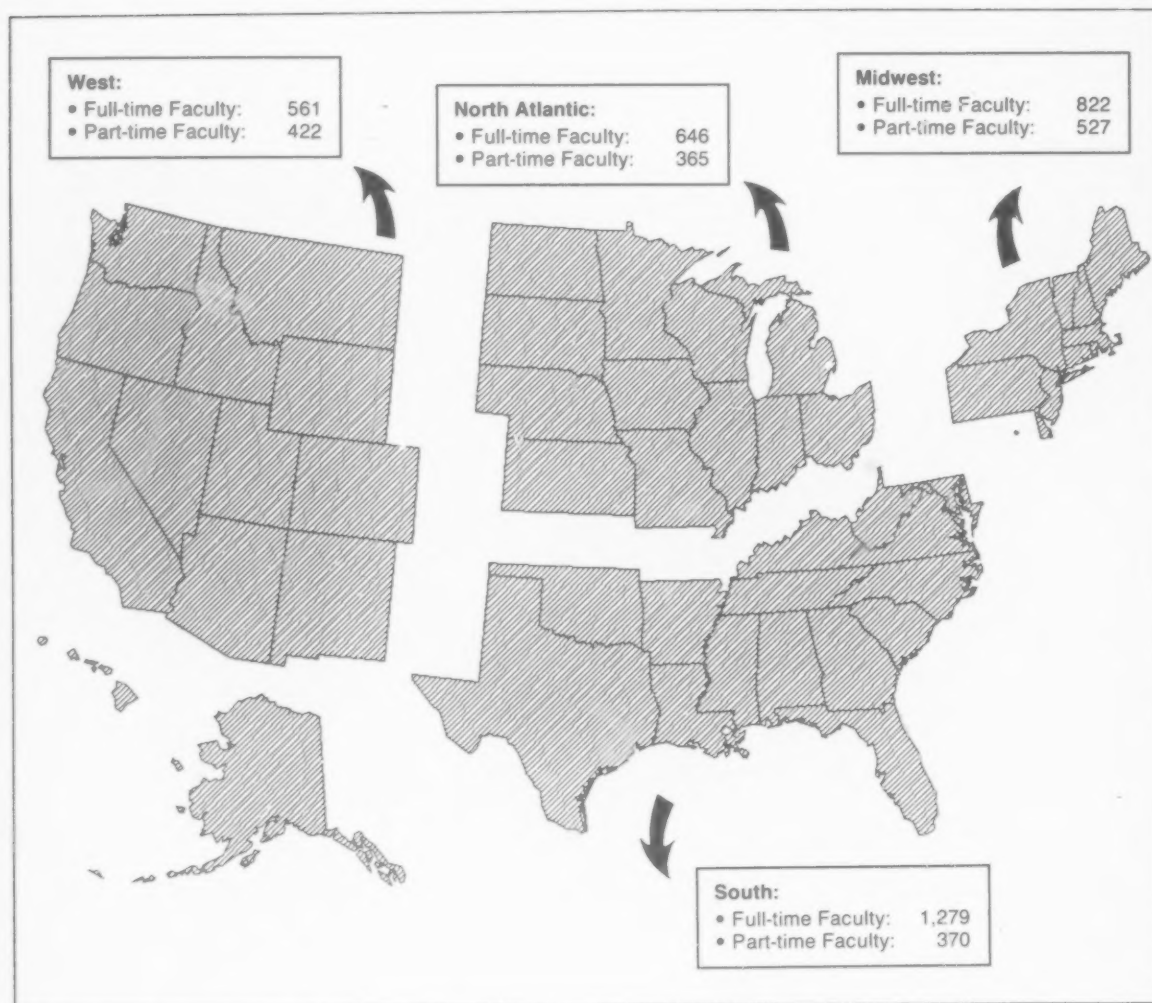


Figure 2. Geographic Distribution of LPN/LVN Educators, 1990

**Highest Earned Credentials
of LPN/LVN Chief Educational Administrators, 1990**

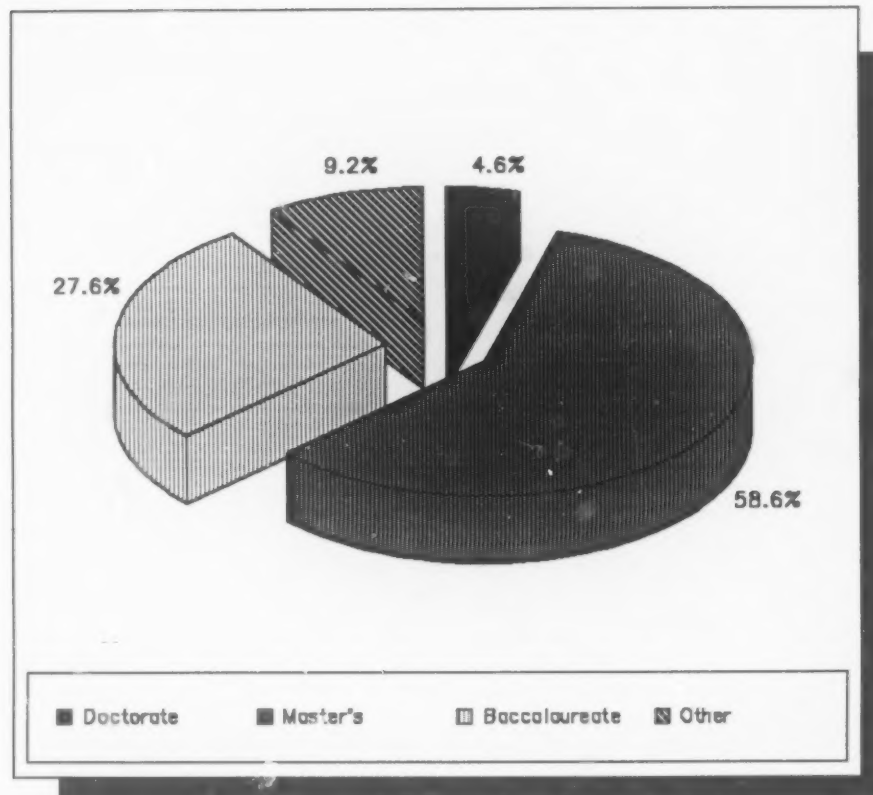


Figure 3. Highest Earned Credentials of LPN/LVN Chief Educational Administrators, 1990

Highest Earned Credentials of Full-Time LPN/LVN Educators: 20-Year Trend, 1970 to 1990

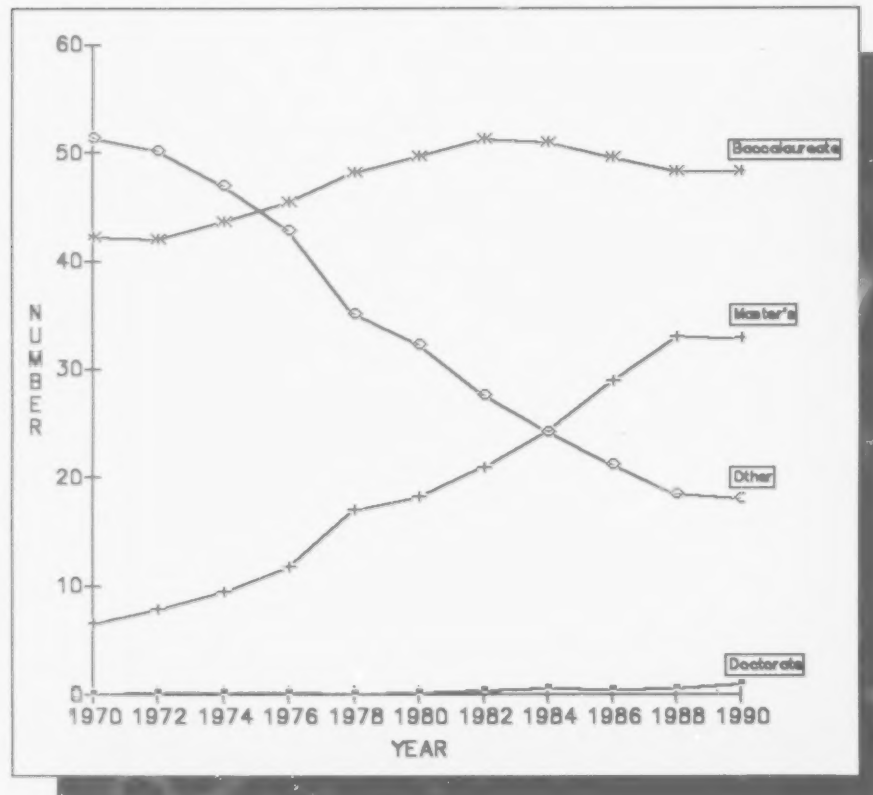


Figure 4. Highest Earned Credentials of Full-Time LPN/LVN Educators: 20-Year Trend, 1970 to 1990

Racial/Ethnic Backgrounds of LPN/LVN Educators, 1990

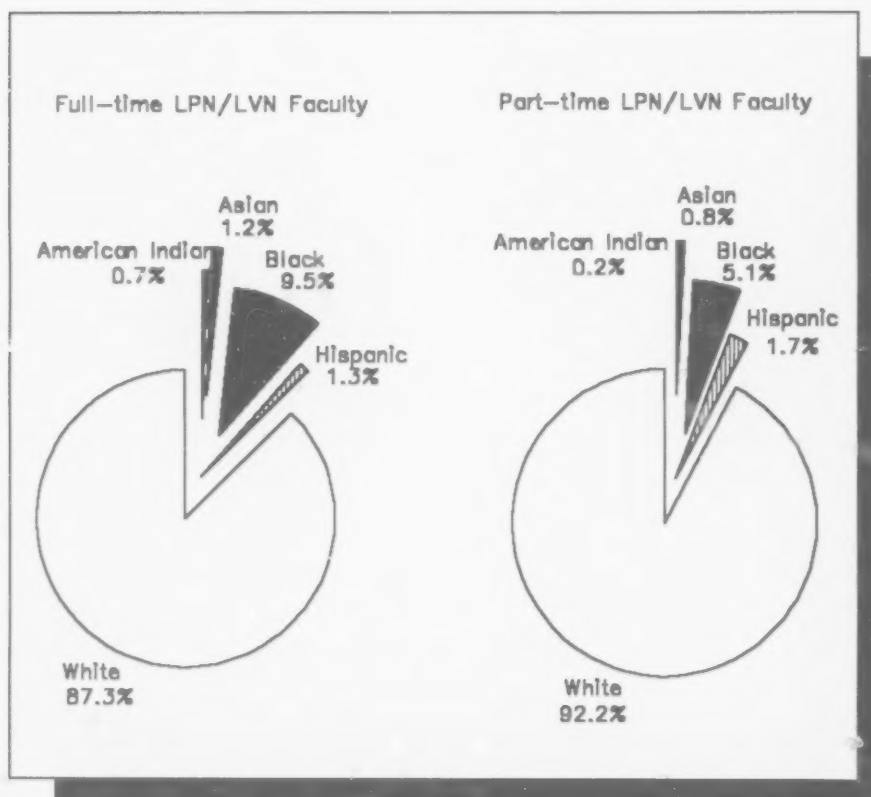


Figure 5. Racial/Ethnic Backgrounds of LPN/LVN Educators, 1990

**LPN/LVN Faculty Workload:
Average Number of Hours Involved in Each Activity, 1990**

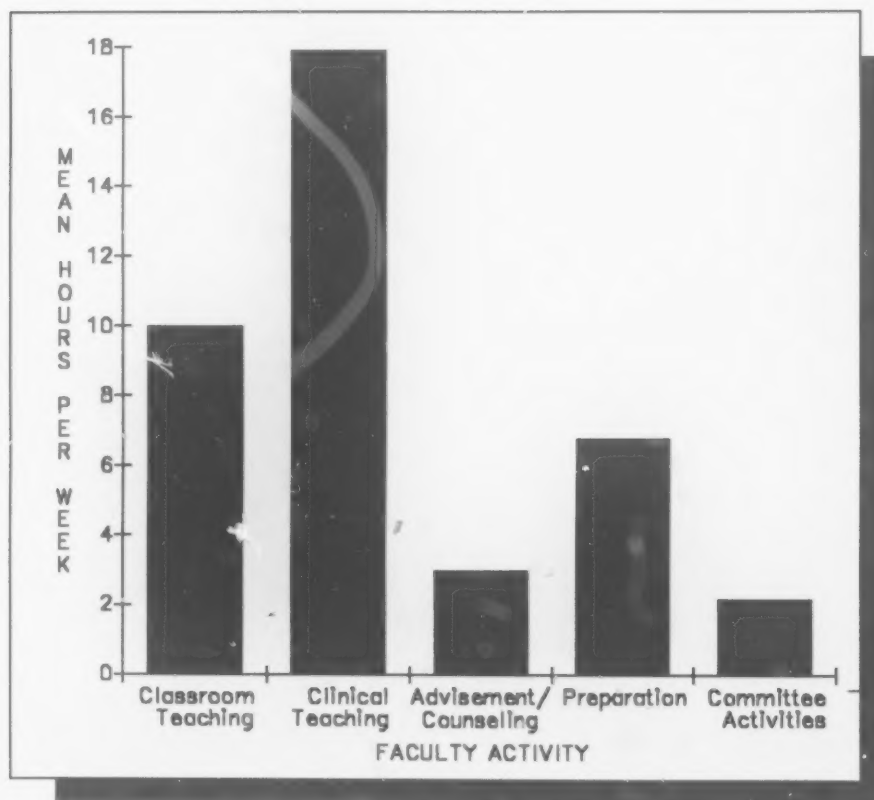


Figure 6. LPN/LVN Faculty Workload: Average Number of Hours Involved in Each Activity, 1990

Section 6-3
Numeric Tables



Table 1
NUMBER OF FULL-TIME AND PART-TIME NURSE FACULTY IN LPN/LVN PROGRAMS: 1970 TO 1990

YEAR ²	REPORTING SCHOOLS ¹					TOTAL SCHOOLS (ESTIMATED)				
	Number of Programs Reporting	Percentage of Total Schools	Full-Time Faculty	Part-Time Faculty	Unfilled Budgeted Positions	Total Number of Schools	Total Nurse Faculty	Full-Time Faculty	Part-Time Faculty	Unfilled Budgeted Positions
1970										
Number	1,194	95.4	3,844	757	159	1,252	4,428	4,031	794	167
Percentage change	+25.9	+12.9	+18.0	-1.0	+0.0	+9.0	+0.6	+2.3	-14.2	-16.1
1972										
Number	1,201	93.0	4,271	990	139	1,291	5,123	4,591	1,064	150
Percentage change	+0.6	-2.4	+11.1	+30.8	-12.6	+3.1	+15.7	+13.9	+34.0	-10.2
1974										
Number	1,277	97.8	4,656	1,167	142	1,306	5,359	4,762	1,193	145
Percentage change	+6.3	+4.8	+9.0	+17.9	+2.2	+1.2	+4.6	+3.7	+12.1	-3.3
1976										
Number	1,204	95.0	4,793	1,100	117	1,267	5,624	5,045	1,158	123
Percentage change	-5.6	-2.8	+2.9	-5.7	-17.6	-3.0	+4.9	+5.9	-2.9	-15.2
1978										
Number	1,140	90.0	4,524	1,149	89	1,266	5,662	5,024	1,276	99
Percentage change	-8.3	-5.0	-5.6	+4.4	-23.9	-0.1	+0.7	-0.4	+10.2	-19.5
1980										
Number	1,116	88.9	4,227	1,238	92	1,255	5,449	4,753	1,392	103
Percentage change	-2.1	-1.1	-6.6	+7.7	+3.4	-0.9	-3.8	-5.4	+9.1	+4.0
1982										
Number	1,045	81.0	4,161	1,303	111	1,290	5,941	5,137	1,608	137
Percentage change	-6.4	-7.9	-1.6	+5.3	+20.7	+2.8	+9.0	+8.1	+15.5	+33.0
1984										
Number	1,075	81.4	4,333	1,494	83	1,325	6,239	5,321	1,835	102
Percentage change	+2.9	+0.4	+4.1	+14.7	-25.2	+2.7	+5.0	+3.6	+14.1	-25.5
1986										
Number	757	60.8	2,700	1,030	36	1,245	5,288	4,441	1,694	59
Percentage change	-29.6	-20.6	-37.7	-31.3	-56.6	-6.0	-15.3	-16.5	-8.0	-42.2
1988										
Number	868	80.2	3,120	1,234	68	1,062	4,660	3,890	1,539	85
Percentage change	+14.7	+19.4	+15.6	+19.8	+88.9	-13.1	-11.9	-12.4	-9.1	+44.1
1990										
Number	857	81.8	3,306	1,684	81	1,048	5,925	4,044	1,881	99
Percentage change	-1.3	+1.6	+6.0	+36.5	+19.1	-3.1	+27.1	+4.0	+22.2	+16.5

¹ Directors of schools not included. Includes Puerto Rico.

² As of January of each year.

Table 2
FULL-TIME AND PART-TIME NURSE FACULTY IN LPN/LVN PROGRAMS, BY STATE, 1990

STATE	TOTAL NUMBER OF PROGRAMS	NUMBER OF PROGRAMS RESPONDING	TOTAL FACULTY	LPN/LVN	
				FULL TIME	PART TIME
United States	1,048	857	4,993	3,308	1,684
North Atlantic	180	161	1,011	646	365
Midwest	236	199	1,349	822	527
South	466	365	1,650	1,279	370
West	164	132	983	561	422
Alabama	22	17	153	64	89
Alaska	0	0	0	0	0
Arizona	9	9	89	55	34
Arkansas	27	25	62	40	21
California	73	56	378	227	151
Colorado	14	12	134	46	88
Connecticut	11	11	48	47	1
Delaware	3	3	27	18	9
District of Columbia	2	2	21	13	8
Florida	36	32	238	188	50
Georgia	41	26	85	73	12
Hawaii	4	2	22	18	4
Idaho	5	5	17	13	4
Illinois	32	29	220	142	78
Indiana	19	17	127	88	39
Iowa	25	16	105	43	62
Kansas	16	15	105	83	22
Kentucky	17	15	83	67	16
Louisiana	34	24	83	76	7
Maine	5	4	28	24	4
Maryland	15	10	36	24	12
Massachusetts	21	20	94	67	27
Michigan	26	17	179	92	87
Minnesota	26	25	147	64	83
Mississippi	14	9	39	34	5
Missouri	32	30	138	99	39
Montana	5	4	19	12	7
Nebraska	9	6	46	36	8
Nevada	3	1	14	4	10
New Hampshire	2	2	15	6	9
New Jersey	25	19	130	88	42
New Mexico	7	7	33	26	7
New York	57	48	352	185	167
North Carolina	27	18	55	35	20
North Dakota	3	3	16	15	1
Ohio	41	35	227	129	98
Oklahoma	27	24	77	62	15
Oregon	10	8	65	42	23
Pennsylvania	50	48	256	162	94
Rhode Island	1	1	28	28	0
South Carolina	21	15	50	39	11
South Dakota	2	1	5	3	2
Tennessee	22	17	86	80	6
Texas	97	77	421	355	66
Utah	6	5	42	25	17
Vermont	3	3	12	8	4
Virginia	49	40	137	107	30
Washington	22	19	142	81	61
West Virginia	19	15	44	34	10
Wisconsin	5	5	34	26	8
Wyoming	6	4	28	12	16
American Samoa	1	1	3	2	1
Guam	0	0	0	0	0
Puerto Rico	21	9	47	31	16
Virgin Islands	1	0	0	0	0

Table 3
NUMBER AND PERCENT OF NURSE AND NON-NURSE FACULTY IN LPN/LVN PROGRAMS, BY REGION, 1990

NLN REGION ¹	FULL-TIME FACULTY						PART-TIME FACULTY					
	Total		Nurse		Non-Nurse		Total		Nurse		Non-Nurse	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
All Regions	3,300	100.0	3,300	97.6	81	2.4	1,067	100.0	1,064	99.2	193	9.8
North Atlantic	663	100.0	646	98.7	17	2.6	401	100.0	365	91.0	36	9.0
Midwest	833	100.0	822	97.2	11	1.3	601	100.0	527	87.7	74	12.3
South	1,316	100.0	1,279	97.2	37	2.8	421	100.0	370	87.9	51	12.1
West	577	100.0	561	97.2	16	2.8	444	100.0	422	95.0	22	5.0

¹ Excludes territories

Table 4
HIGHEST EARNED CREDENTIAL OF ADMINISTRATORS IN LPN/LVN PROGRAMS: 1970 TO 1990

YEAR ¹	TOTAL ADMINISTRATORS REPORTED ²		HIGHEST EARNED CREDENTIAL							
			Doctorate		Master's		Baccalaureate		Other	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
1970	972	100.0	3	0.3	317	32.6	445	45.8	207	21.3
1972	1,097	100.0	6	0.5	345	31.5	476	43.6	268	24.4
1974	1,085	100.0	12	1.1	387	35.7	459	42.3	227	20.9
1976	1,101	100.0	20	1.8	442	40.2	422	38.3	217	19.7
1978	1,073	100.0	21	2.0	459	42.8	420	39.1	173	16.1
1980	1,041	100.0	16	1.5	467	44.9	414	39.8	144	13.8
1982	991	100.0	32	3.2	491	49.6	350	35.3	118	11.9
1984	962	100.0	38	4.0	506	52.6	304	31.6	114	11.9
1986	734	100.0	40	5.4	413	56.3	216	29.4	65	8.9
1988	857	100.0	47	5.5	464	54.1	326	38.0	20	2.3
1990	830	100.0	38	4.6	487	58.6	229	27.6	76	9.2

¹ As of January of each year

² Excludes territories

Table 5
HIGHEST EARNED CREDENTIAL OF FULL-TIME NURSE FACULTY OF LPN/LVN PROGRAMS: 1970 TO 1990

YEAR ¹	TOTAL FULL-TIME FACULTY REPORTED ²		HIGHEST EARNED CREDENTIAL							
			Doctorate		Master's		Baccalaureate		Other	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
1970	3,844	100.0	0	0.0	250	6.5	1,622	42.2	1,972	51.3
1972	4,271	100.0	3	0.1	332	7.8	1,794	42.0	2,142	50.1
1974	4,656	100.0	3	0.1	439	9.4	2,029	43.6	2,185	46.9
1976	4,793	100.0	5	0.1	559	11.7	2,174	45.4	2,055	42.8
1978	4,524	100.0	2	0.0	764	16.9	2,175	48.1	1,583	35.0
1980	4,227	100.0	5	0.1	763	18.1	2,096	49.6	1,363	32.2
1982	4,161	100.0	10	0.3	670	20.9	2,131	51.2	1,150	27.6
1984	4,250	100.0	21	0.5	1,033	24.3	2,164	50.9	1,031	24.2
1986	2,740	100.0	11	0.4	793	28.9	1,355	49.5	581	21.2
1988	3,120	100.0	17	0.5	1,027	32.9	1,503	48.2	573	18.4
1990	3,232	100.0	30	0.9	1,081	32.8	1,587	48.2	594	18.0

¹ As of January of each year

² Excludes territories

Table 6
HIGHEST EARNED CREDENTIAL OF PART-TIME NURSE FACULTY OF LPN/LVN PROGRAMS: 1970 TO 1990

YEAR ¹	TOTAL PART-TIME FACULTY REPORTED ²		HIGHEST EARNED CREDENTIAL							
			Doctorate		Master's		Baccalaureate		Other	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
1970	757	100.0	2	0.3	44	5.8	296	39.1	415	61.8
1972	990	100.0	6	0.6	74	7.5	392	39.6	518	52.3
1974	1,167	100.0	3	0.3	99	8.5	467	40.0	598	51.2
1976	1,100	100.0	1	0.1	108	9.8	478	43.5	513	46.6
1978	1,149	100.0	3	0.3	145	12.6	540	47.0	461	40.1
1980	1,238	100.0	0	0.0	127	10.3	642	52.8	469	37.9
1982	1,303	100.0	5	0.4	141	10.8	710	54.5	447	34.3
1984	1,471	100.0	4	0.3	257	17.5	760	51.7	451	30.6
1986	1,030	100.0	7	0.7	200	19.4	528	51.3	295	28.6
1988	1,234	100.0	7	0.6	245	19.9	680	55.1	302	24.5
1990	1,664	100.0	6	0.4	300	18.0	957	57.5	401	24.1

¹ As of January of each year

² Excludes territories

Table 7
HIGHEST EARNED CREDENTIAL OF FULL-TIME NURSE FACULTY OF LPN/LVN PROGRAMS, BY REGION: 1976 TO 1990

YEAR ¹ BY NLN REGION	TOTAL FULL-TIME FACULTY REPORTED ²		HIGHEST EARNED CREDENTIAL							
			Doctorate		Master's		Baccalaureate		Other	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
North Atlantic										
1976	1,107	100.0	2	0.2	170	15.3	622	56.2	313	28.3
1978	908	100.0	1	0.1	158	17.4	528	58.2	221	24.3
1980	847	100.0	1	0.1	179	21.2	493	58.2	174	20.5
1982	781	100.0	1	0.1	184	23.6	467	59.8	129	16.5
1984	811	100.0	5	0.6	204	25.2	476	58.7	126	15.6
1986	606	100.0	1	0.2	188	31.0	340	56.1	77	12.7
1988	639	100.0	0	0.0	207	32.4	351	54.9	81	12.7
1990	646	100.0	2	0.3	219	33.9	324	50.2	101	15.6
Midwest										
1976	1,263	100.0	1	0.1	108	8.5	586	46.6	566	44.8
1978	1,186	100.0	1	0.1	151	12.7	599	50.5	435	36.7
1980	1,172	100.0	1	0.1	172	14.7	656	56.0	343	29.2
1982	1,133	100.0	2	0.2	199	17.6	638	56.3	294	25.9
1984	1,169	100.0	5	0.4	288	24.6	630	53.9	246	21.0
1986	710	100.0	3	0.4	210	29.6	364	51.3	133	18.8
1988	748	100.0	5	0.7	241	32.2	380	50.8	122	16.3
1990	811	100.0	4	0.5	259	31.9	434	53.5	114	14.1
South										
1976	1,677	100.0	2	0.1	91	5.4	571	34.0	1,013	60.5
1978	1,615	100.0	0	0.0	154	9.5	659	40.8	802	49.7
1980	1,566	100.0	1	0.1	182	11.6	634	40.5	749	47.8
1982	1,619	100.0	1	0.1	229	14.1	741	45.8	648	40.0
1984	1,658	100.0	9	0.5	274	16.5	788	47.5	586	35.3
1986	892	100.0	1	0.1	152	17.0	451	50.6	288	32.3
1988	1,224	100.0	5	0.4	299	24.4	579	47.3	341	27.9
1990	1,274	100.0	10	0.8	300	23.5	612	48.0	352	27.6
West										
1976	746	100.0	0	0.0	190	25.5	393	52.7	163	21.8
1978	815	100.0	0	0.0	301	36.9	389	47.8	125	15.3
1980	642	100.0	2	0.3	230	35.8	313	48.8	97	15.1
1982	628	100.0	6	1.0	258	41.1	285	45.4	79	12.5
1984	612	100.0	2	0.3	267	43.6	270	44.1	73	11.9
1986	482	100.0	6	1.2	243	50.4	200	41.5	33	6.8
1988	509	100.0	7	1.4	280	55.0	193	37.9	29	5.7
1990	561	100.0	14	2.5	303	54.0	217	38.7	27	4.8

¹ As of January of each year

² Excludes territories

Table 8
HIGHEST EARNED CREDENTIAL OF PART-TIME NURSE FACULTY OF LPN/LVN PROGRAMS, BY REGION:
1976 TO 1990

YEAR ¹	TOTAL PART-TIME FACULTY REPORTED ²		HIGHEST EARNED CREDENTIAL							
			Doctorate		Master's		Baccalaureate		Other	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
North Atlantic										
1976	296	100.0	1	0.3	32	10.8	135	45.6	128	43.3
1978	303	100.0	1	0.3	35	11.6	139	45.9	128	42.2
1980	290	100.0	0	0.0	37	12.8	146	50.3	107	36.9
1982	307	100.0	1	0.3	36	11.7	165	53.8	105	34.2
1984	374	100.0	2	0.5	64	17.1	201	53.7	102	28.4
1986	269	100.0	1	0.4	50	18.6	147	54.6	71	26.4
1988	275	100.0	1	0.4	54	19.6	145	52.7	75	27.3
1990	364	100.0	1	0.3	55	15.1	207	56.9	101	27.7
Midwest										
1976	429	100.0	0	0.0	23	5.4	168	39.2	238	55.4
1978	406	100.0	1	0.2	32	7.9	178	43.8	195	48.1
1980	468	100.0	0	0.0	22	4.7	249	53.2	197	42.1
1982	476	100.0	1	0.2	30	6.3	263	55.3	182	38.2
1984	509	100.0	0	0.0	61	12.0	240	47.2	208	40.9
1986	290	100.0	1	0.3	53	18.3	144	49.7	92	31.7
1988	418	100.0	0	0.0	54	12.9	238	56.9	126	30.1
1990	517	100.0	0	0.0	79	0.0	304	0.0	134	0.0
South										
1976	172	100.0	0	0.0	14	8.1	65	37.8	93	54.1
1978	192	100.0	0	0.0	21	10.9	87	45.3	84	43.8
1980	243	100.0	0	0.0	24	9.9	101	41.6	118	48.5
1982	247	100.0	0	0.0	34	13.8	122	49.4	91	36.8
1984	288	100.0	0	0.0	42	14.6	156	54.2	90	31.3
1986	172	100.0	0	0.0	24	14.0	91	52.9	57	33.1
1988	218	100.0	2	0.9	39	17.9	107	49.1	70	32.1
1990	369	100.0	2	0.5	58	16.0	190	51.5	118	32.0
West										
1976	203	100.0	0	0.0	38	19.2	110	54.2	54	26.6
1978	248	100.0	1	0.4	57	23.0	136	54.8	54	21.8
1980	237	100.0	0	0.0	44	18.6	146	61.6	47	19.8
1982	273	100.0	3	1.1	41	15.0	160	58.6	69	25.3
1984	300	100.0	2	0.7	90	30.0	163	54.3	47	15.7
1986	243	100.0	5	2.1	73	30.0	146	60.1	34	7.0
1988	323	100.0	4	1.2	88	30.3	190	58.8	31	9.6
1990	414	100.0	3	0.7	107	25.8	256	61.8	48	11.6

¹ As of January of each year

² Excludes territories

Table 9
NUMBER OF FULL-TIME LPN/LVN FACULTY, BY TYPE OF DEGREE AND REGION, 1990

NLN REGION ¹	MASTER'S DEGREE						BACCALAUREATE					
	Total ²		Nursing Major		Non-Nursing Major		Total ²		Nursing Major		Non-Nursing Major	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
All Regions	1,081	100.0	547	50.6	534	49.4	1,587	100.0	1,220	77.4	368	23.0
North Atlantic	219	100.0	92	42.0	127	58.0	324	100.0	230	71.0	94	29.0
Midwest	259	100.0	112	43.2	147	56.8	434	100.0	355	81.8	79	18.2
South	300	100.0	133	44.3	167	55.7	612	100.0	463	75.6	149	24.4
West	303	100.0	210	69.3	93	30.7	217	100.0	181	83.4	36	16.6

¹ As of January of each year

² Excludes territories

Table 10
NUMBER OF PART-TIME LPN/LVN FACULTY, BY TYPE OF DEGREE AND REGION, 1990

NLN REGION ¹	MASTER'S DEGREE						BACCALAUREATE					
	Total ²		Nursing Major		Non-Nursing Major		Total ²		Nursing Major		Non-Nursing Major	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
All Regions	300	100.0	199	66.3	101	33.7	957	100.0	833	87.0	124	13.0
North Atlantic	55	100.0	34	61.8	21	38.2	207	100.0	165	79.7	42	20.3
Midwest	79	100.0	49	62.0	30	38.0	304	100.0	257	84.5	47	15.5
South	59	100.0	40	67.8	19	32.2	190	100.0	167	87.9	23	12.1
West	107	100.0	76	71.0	31	29.0	256	100.0	244	95.3	12	4.7

¹ As of January of each year

² Excludes territories

Table 11
ETHNIC BACKGROUND OF ADMINISTRATORS IN LPN/LVN PROGRAMS, BY REGION, 1990

NLN REGION ¹	NUMBER OF ADMINISTRATORS		ETHNIC BACKGROUND OF ADMINISTRATORS									
			American Indian or Alaskan Native		Asian or Pacific Islander		Black Non-Hispanic		Hispanic		White Other than Hispanic	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
All Regions	661	100.0	7	1.0	8	1.2	38	5.6	6	1.2	620	91.0
North Atlantic	138	100.0	0	0.0	1	0.7	7	5.1	1	0.7	129	93.5
Midwest	153	100.0	0	0.0	3	2.0	3	2.0	0	0.0	147	96.1
South	289	100.0	5	1.7	0	0.0	22	7.6	4	1.4	258	89.3
West	101	100.0	2	2.0	4	4.0	6	5.9	3	3.0	86	85.1

¹ Excludes territories

Table 12
ETHNIC BACKGROUND OF FULL-TIME FACULTY IN LPN/LVN PROGRAMS, BY REGION, 1990

NLN REGION ¹	NUMBER OF FULL-TIME FACULTY		ETHNIC BACKGROUND OF FULL-TIME FACULTY									
			American Indian or Alaskan Native		Asian or Pacific Islander		Black Non-Hispanic		Hispanic		White Other than Hispanic	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
All Regions	3,263	100.0	24	0.7	40	1.2	309	9.5	42	1.3	2,848	87.3
North Atlantic	844	100.0	0	0.0	4	0.6	43	6.7	0	0.0	597	92.7
Midwest	803	100.0	9	1.1	10	1.2	72	9.0	3	0.4	709	88.3
South	1,255	100.0	12	1.0	5	0.4	153	12.2	25	2.0	1,060	84.5
West	561	100.0	3	0.5	21	3.7	41	7.3	14	2.5	482	85.9

¹ Excludes territories

Table 13
ETHNIC BACKGROUND OF PART-TIME FACULTY IN LPN/LVN PROGRAMS, BY REGION, 1990

NLN REGION ¹	NUMBER OF PART-TIME FACULTY		ETHNIC BACKGROUND OF PART-TIME FACULTY									
			American Indian or Alaskan Native		Asian or Pacific Islander		Black Non-Hispanic		Hispanic		White Other than Hispanic	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
All Regions	1,662	100.0	4	0.2	13	0.8	84	5.1	29	1.7	1,532	92.2
North Atlantic	364	100.0	0	0.0	0	0.0	14	3.8	3	0.8	347	95.3
Midwest	513	100.0	3	0.6	1	0.2	12	2.3	3	0.6	494	96.3
South	370	100.0	1	0.3	0	0.0	45	12.2	11	3.0	313	84.6
West	415	100.0	0	0.0	12	2.9	13	3.1	12	2.9	378	91.1

¹ Excludes territories.

Table 14
**NUMBER OF FULL-TIME AND PART-TIME MALE FACULTY IN LPN/LVN PROGRAMS,
BY REGION, 1990**

NLN REGION ¹	FULL-TIME FACULTY				PART-TIME FACULTY			
	Total		Male Faculty		Total		Male Faculty	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent
All Regions	3,308	100.0	86	2.6	1,684	100.0	44	2.6
North Atlantic	646	100.0	7	1.1	365	100.0	11	3.0
Midwest ¹	822	100.0	8	1.0	527	100.0	12	2.3
South	1,279	100.0	55	4.3	370	100.0	13	3.5
West	561	100.0	16	2.9	422	100.0	8	1.9

¹ Excludes territories.

Table 15
**FULL-TIME LPN/LVN FACULTY WORKLOAD (IN MEAN HOURS PER WEEK),
BY ACTIVITY AND REGION, 1990**

FACULTY ACTIVITY	ALL REGIONS	NORTH ATLANTIC	MIDWEST	SOUTH	WEST
	Mean Hours	Mean Hours	Mean Hours	Mean Hours	Mean Hours
Classroom Teaching	10.0	10.3	8.9	11.5	7.3
Clinical Teaching	17.9	18.1	16.4	19.1	16.6
Advisement/Counseling	3.0	2.6	3.1	2.9	3.7
Preparation	6.8	6.0	7.4	6.5	7.6
Committee Activities	2.2	2.0	2.1	2.1	2.8

¹ Excludes territories.

Table 16
AVERAGE NUMBER OF STUDENTS IN CLASSROOM AND CLINICAL GROUPS
IN LPN/LVN PROGRAMS, BY REGION, 1990

FACULTY ACTIVITY	ALL REGIONS	NORTH ATLANTIC	MIDWEST	SOUTH	WEST
	Mean Hours	Mean Hours	Mean Hours	Mean Hours	Mean Hours
Classroom Teaching	29.4	30.4	31.6	27.2	31.7
Clinical Teaching	11.3	10.6	9.9	12.5	11.1

¹ Excludes territories.

Table 17
MEAN SALARIES OF
CHIEF ADMINISTRATORS OF LPN/LVN
PROGRAMS, BY TYPE OF APPOINTMENT
AND REGION, 1990

REGION	ACADEMIC YEAR	CALENDAR YEAR
<i>United States</i>		
Number Reporting	281	381
Salary	\$32,820	\$42,225
<i>North Atlantic</i>		
Number Reporting	51	72
Salary	\$42,220	\$41,597
<i>Midwest</i>		
Number Reporting	56	107
Salary	\$36,767	\$36,248
<i>South</i>		
Number Reporting	130	158
Salary	\$30,694	\$46,270
<i>West</i>		
Number Reporting	44	44
Salary	\$35,180	\$43,514

Table 18
MEAN SALARIES OF FULL-TIME LPN/LVN FACULTY, BY HIGHEST CREDENTIAL,
TYPE OF APPOINTMENT, AND REGION, 1990

RANK AND HIGHEST EARNED CREDENTIAL	UNITED STATES		NORTH ATLANTIC		MIDWEST		SOUTH		WEST	
	Academic	Calendar	Academic	Calendar	Academic	Calendar	Academic	Calendar	Academic	Calendar
<i>Instructor</i>										
Doctorate/MS (Nursing)	\$31,857	\$34,805	\$32,923	\$39,111	\$30,865	\$33,631	\$35,017	\$37,457	\$30,946	\$30,698
MA (Non-Nursing)	34,688	34,403	35,876	35,461	34,653	33,574	34,698	35,527	33,673	31,229
BSN	27,759	28,791	29,444	32,561	28,153	27,587	27,711	27,538	28,121	30,354
Other Credential	27,946	29,189	30,690	31,497	23,877	31,192	27,456	27,471	"	26,951
<i>Other Faculty</i>										
Doctorate/MS (Nursing)	\$30,547	"	"	"	"	"	\$31,000	"	\$29,742	"
MA (Non-Nursing)	30,635	\$34,200	\$30,800	\$38,750	"	"	"	\$34,100	"	"
BSN	27,337	28,531	30,925	27,644	\$28,237	"	23,675	29,151	"	"
Other Credential	30,442	29,365	"	"	"	"	28,583	22,834	"	"

* Too few data to warrant publication.

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